



Planetary Health Report Card (Pharmacy) 2026: *Istanbul University*



2025-2026 Contributing Team:

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Land acknowledgement: Another important event of the “New Era” that began with the conquest of Istanbul by Mehmet the Conqueror in 1453 was the laying of the foundations of Istanbul University. Istanbul University proudly bears the distinction of being one of the first 10 universities established in Europe. Over the centuries, Istanbul University has experienced many changes ahead of its time; the only constant is its pioneering role in the scientific field.

The history of Istanbul University, one of Turkey's oldest brands dating back to 1453, is also the history of scientific education and development in Turkey.

Pharmacy education, in our country began with the “Pharmacist Class” opened within the Mekteb-i Tıbbiye-i Adliye-i Şahane (Military Medical School) established in Galatasaray by Sultan II.Mahmut on May 14, 1839. Education in this school was conducted in French until 1870. In 1848, the building of Mekteb-i Tıbbiye-i Şahane was completely burned down in a fire that broke out in Beyoğlu. After this fire, the school continued its education in different neighborhoods and was finally moved to the building built in Haydarpaşa in 1903.

On March 1, 1867, the Mekteb-i Tıbbiye-i Mülkiye-i Şahane (Civil Medical School) was opened in a part of the Military Medical School building. There is also a Pharmacy Class in this school. This school was later moved to the Menemenli Mustafa Pasha Mansion in Kadırga. After the establishment of Istanbul Darülfünunu in 1908, the “Pharmacist Class” was transformed into the “Eczacı Mekteb-i Alisi” and merged with the Dental School established in the same year, and was named “Darülfünun-i Osmani Eczacı ve Dişçi Mekteb-i Alisi”. The upper floor of the Menemenli Mustafa Pasha Mansion was allocated to this school. However, this building, which was already in ruins, became unusable for education after a while. Upon this, the Pharmacy and Dental Schools were moved to the former Gendarmerie Command building in Beyazıt Square in 1927. This building is now the Beyazıt State Library.

Meanwhile, the 1933 University Reform was carried out. Due to the fact that the teaching program of the Pharmacy School was closer to the natural sciences than medicine, the School was separated from the Faculty of Medicine and attached to the Faculty of Science. In 1938, the duration of education was increased from 3 years to 4 years. In 1944, the school was re-attached to the Faculty of Medicine and named “Pharmacy School”.

When the Military Medical School, which was teaching in the Keçecizade Fuat Pasha Mansion in Beyazıt Square, was moved to Ankara in 1947, this building was allocated to the Pharmacy School by the Council of Ministers. However, the repair of the building took 12 years and the Pharmacy School was able to move to this building in 1959. The lecturers and students of the Eczacı Mektebi, who believed that education should be made independent for better pharmacy education and the profession to be successful, and therefore separated from the Faculty of Medicine, started their initiatives to establish a Faculty of Pharmacy in 1923, but these initiatives could only be concluded in 1961. At the meeting of the Faculty of Medicine Professors Board on February 4, 1961, it was unanimously accepted to turn the Pharmacy School into a Faculty. The decision was passed by the Istanbul University Senate

on November 16, 1961, and Istanbul University Faculty of Pharmacy was officially established on January 15, 1962, with the approval of the Minister of National Education. The Faculty of Pharmacy Professors Board, which met on October 17, 1963, elected Prof. Dr. Turhan Baytop as the dean. Istanbul University Faculty of Pharmacy started education with a ceremony held on November 4, 1963.

Summary of Findings

| | |
|---|-----------|
| Overall Grade | C+ |
| Curriculum | B |
| <p>The Faculty of Pharmacy demonstrates strong integration of planetary health concepts within the core curriculum. Climate-related health impacts such as extreme weather events, air pollution, antimicrobial resistance, infectious disease shifts, environmental toxicology, and social determinants of health are comprehensively addressed across required courses. Environmental impacts of pharmaceuticals, green chemistry principles, and sustainability in manufacturing are particularly well incorporated, reflecting alignment with sustainable healthcare frameworks. Public Health, Green Chemistry, Pharmaceutical Microbiology, Immunology, Pharmacognosy, and Toxicology courses collectively provide multidimensional exposure to planetary health concepts. The curriculum also meaningfully addresses environmental justice and inequities related to climate change.</p> <p>However, several gaps remain. The cardiovascular impacts of climate change are not directly framed within a climate-health context. The carbon footprint of healthcare systems is addressed only partially and lacks a systems-level analysis of healthcare emissions. Mental health impacts of climate change are discussed indirectly rather than as a structured planetary health topic. Sustainable clinical practice principles (e.g., healthcare waste reduction strategies beyond basic coverage) could also be more systematically integrated. Overall, planetary health content is embedded broadly, but not yet structured under an explicit, cohesive planetary health framework.</p> <p>Recommendations:</p> <ol style="list-style-type: none"> 1. Integrate a structured “Planetary Health and Sustainable Pharmacy Practice” module within the core curriculum to unify dispersed content under a systems-based framework. 2. Expand curriculum content to explicitly address climate-related cardiovascular risks and healthcare system carbon accounting, including pharmaceutical supply chains. | |
| Interdisciplinary Research | C- |
| <p>The Faculty of Pharmacy has an Environmental Management Unit and a Sustainable Development Board to guide ecological initiatives. The faculty does not have a research group specifically dedicated to planetary health, but it does have academics who conduct research related to sustainability in addition to their own fields.</p> <p>In addition to university-wide events, the faculty organized the 'Biodiversity Day: Harmony with nature and sustainable development' panel.</p> <p>There are no planetary health organizations in Türkiye, and the university is not a member of any international organization.</p> <p>Recommendations:</p> <ol style="list-style-type: none"> 1. Establish a research group to conduct interdisciplinary research in the fields of planetary health and sustainable healthcare. 2. Create a planetary health website that centralizes past and new research on health and the environment. 3. Strengthen collaboration with international planetary health networks to enhance research and advocacy efforts. | |
| Community Outreach and Advocacy | B- |
| <p>Istanbul University collaborates with community organizations such as Genç TEMA (<i>Türkiye Erozyonla Mücadele, Ağaçlandırma ve Doğal Varlıkları Koruma Vakfı</i>) to promote environmental and planetary health. Many</p> | |

faculty-affiliated ecology clubs also involve students in sustainability initiatives. The university offers community-oriented courses and certificate programs on topics such as green transformation, agricultural sustainability, and environmental health. In addition, the Farmaekoloji Club organizes annual panels on Biodiversity Day to raise awareness.

Sustainability issues are periodically featured in university communications; while there is no specific postgraduate program dedicated to planetary health education, there is a postgraduate program related to Climate Change.

The Faculty of Medicine Hospital provides in-service training on environmental awareness and waste management, but there are no educational materials available for patients regarding the effects of climate change on health.

Recommendations:

1. Develop postgraduate education programs to keep healthcare professionals updated on planetary health and sustainability.
2. Create accessible educational materials for patients on the health impacts of climate change.

Support for Student-Led Initiatives

B

The university provides strong support for student-led sustainability and planetary health initiatives through active student organizations, faculty mentorship, and diverse co-curricular activities. Events such as Ecofest and Biodiversity Day panels demonstrate meaningful engagement and interdisciplinary participation. Students have access to workshops, field activities, environmental training, and advocacy platforms.

However, support mechanisms remain largely initiative-based rather than structurally institutionalized. Dedicated funding streams, formal research pathways, and a centralized planetary health platform are limited.

Recommendations:

1. Establish a small institutional grant or fellowship program to support student-led planetary health research and quality improvement projects.
2. Develop a centralized planetary health webpage to improve coordination, visibility, and continuity of student initiatives.

Campus Sustainability

C-

The institution demonstrates partial but fragmented engagement in campus sustainability. Structural elements such as a Sustainability Commission and a Sustainable Purchasing Policy are in place, and sustainable procurement practices are relatively strong. Laboratory waste management systems and hazardous waste protocols are well established. Sustainable building practices are being integrated into newly reconstructed facilities, particularly within the Faculty of Pharmacy.

However, major structural gaps significantly lower overall performance. There is no formal carbon neutrality target or approved decarbonization roadmap. Renewable energy use across campus is undocumented and appears minimal. Food sustainability policies, low-carbon transportation strategies, and mandatory sustainability standards for events are either absent or informal. While recycling programs exist, composting infrastructure is lacking.

Overall, sustainability efforts are policy-present but strategy-weak: operational practices exist in isolated domains, yet the institution lacks a measurable, time-bound, institution-wide climate action framework.

Recommendations:

1. Develop and publicly adopt a measurable carbon neutrality roadmap with defined interim targets (e.g., 2030 and 2040 benchmarks), including renewable energy transition and emissions reporting mechanisms.
2. Establish institution-wide sustainability standards covering food services, transportation planning, event management, and renewable energy integration to shift from committee-based intent to operational accountability.

Statement of Purpose

Planetary health is human health.

The Planetary Health Alliance describes planetary health as “a solutions-oriented, transdisciplinary field and social movement focused on analysing and addressing the impacts of human disruptions to Earth’s natural systems on human health and all life on Earth.” This definition is intentionally broad, intended to encompass the multitude of ways that the environment can affect health, including water scarcity, changing food systems, urbanisation, biodiversity shifts, natural disasters, climate change, changing land use and land cover, global pollution, and changing biogeochemical flows. The health of humanity is dependent on our environment, and our environment is changing rapidly and in disastrous ways. Although the World Health Organization has called climate change “the greatest threat to global health in the 21st century,” many health professional school’s institutional priorities do not reflect the urgency of this danger to human health.

As future health professionals, we must be prepared to address the impacts of human-caused environmental changes on our patients’ health. This preparation is in the hands of the institutions providing our health professional training. It is imperative that we hold our institutions accountable for educating health professional students about the health impacts of climate change and other anthropogenic environmental changes, generating research to better understand health impacts and solutions, supporting related student initiatives, embracing sustainable practices as much as possible, and engaging with surrounding communities that are most affected by environmental threats. Because climate change and environmental threats disproportionately affect vulnerable populations (for example, communities of colour, older adults sensitive to health threats, and individuals in low-resource settings), these issues are inherently ones of equity and justice.

With the purpose of increasing planetary health awareness and accountability among health professional schools, we have created a Planetary Health Report Card that students internationally can use to grade and compare their institutions on an annual basis. This student-driven initiative aims to compare health professional schools nationally and internationally on the basis of discrete metrics in five main category areas: 1) planetary health curriculum, 2) interdisciplinary research in health and environment, 3) university support for student planetary health initiatives, and 4) community outreach centred on environmental health impacts 5) school campus sustainability.

Definitions & Other Considerations

Definitions:

- **Planetary Health:** is described by the Planetary Health Alliance as “the health of human civilisation and the state of the natural systems on which it depends.” For example, topics such as climate change, declining biodiversity, shortages of arable land and freshwater, and pollution would all fall under the realm of planetary health. Both planetary health and traditional ‘environmental health’ examine the relationship between human health and the external environment, including extreme temperatures, chemicals, vector-borne diseases, etc. Planetary health explicitly concerns itself with the potential health harms associated with human-caused perturbations of natural systems. Therefore, the human health focus of planetary health makes the field well-adapted for the context of health professional education. Throughout this report card, we use the term planetary health to refer to this broad swath of topics, but resources do not need to explicitly include the term “planetary health” to satisfy the metric.
- **Sustainable Healthcare:** As defined by the Academy of Royal Colleges, sustainable healthcare involves ensuring the ability to provide good quality care for future generations by balancing the economic, environmental, and social constraints and demands within health care settings. A sustainable healthcare system maintains population health, reduces disease burden and minimises use of healthcare services.
- **Education for Sustainable Healthcare (ESH):** is defined as the process of equipping current and future health professionals with the knowledge, attitudes, skills and capacity to provide environmentally sustainable services through health professional education, thus working to decrease the enormous environmental impact of the healthcare industry. Planetary Health Education is an integral part of this education rather than an end in itself. This is because knowledge on Planetary Health is required to be able to fully understand the necessity of sustainable healthcare as well as being part of the broader knowledge needed to fully protect and promote health. In summary, ESH is covered by the three Priority Learning Outcomes of the Centre of Sustainable Healthcare below, and Planetary Health Education is embraced in the first learning objective and is a fundamental requirement to achieve learning outcomes 2 and 3:
 1. Describe how the environment and human health interact at different levels.
 2. Demonstrate the knowledge and skills needed to improve the environmental sustainability of health systems.
 3. Discuss how the duty of a doctor to protect and promote health is shaped by the dependence of human health on the local and global environment.
- **Pharmacy School/Department vs. Institution:** When “Pharmacy school” is specified in the report card, this only refers to curriculum and resources offered by the School/department of Pharmacy and does not include offerings from other parts of the university (e.g. undergraduate departments (USA), other related departments (e.g. Public Health, Population Health departments). In contrast, when “institution” is specified in the report card, we are referring to the university more broadly including all of its campuses. Any resource reasonably accessible by Pharmacy students, no matter where in the institution the resource

comes from or if it is specifically targeted for medical students, can meet this metric.

- **Environmental history (Curriculum Section):** This is a series of questions students are taught to ask during medical encounters that elicits patients' exposures and environmental risk factors. Historically, this has included consideration of exposures like pesticides, asbestos, and lead, though in the modern era shaped by climate change, it can be expanded to include things like wildfire smoke exposure, air pollution and mould after flooding. Key components include place of residence over the lifecourse, occupational history, food and water sources (e.g. meat from industrial feeding operations, regular fishing in contaminated water, access to clean drinking water), and exposure to air pollution. Please be as specific as possible when providing evidence for this metric.
- **Elective:** The word "elective" refers to an optional course or lecture series that a student can opt to take part in but is not a requirement in the core curriculum. Generally, these elective courses take place in the preclinical curriculum but vary by school.
- **Core Curriculum:** This refers to taught material that is delivered to the entire cohort of students in one year.
- **Clerkship / Outreach:** This is a term used in the USA to refer to placements that medical students go on e.g. Pediatrics, General medicine, Psychiatry. In the UK these are referred to as rotations, outreach or placements. This is a relatively short (approximately 4-8 weeks) period of study and patient-centred clinical experience that takes place as part of the undergraduate programme.
- **Clinical rotation:** This is a term used to refer to placements that students go on (e.g., ophthalmology, surgery, cardiology).
- **Physiotherapy vs Physical Therapy:** For the purposes of this report card these terms are considered interchangeable. However, physiotherapy will be used primarily.
- **Community organisations:** For most institutions, there are existing groups that are not directly affiliated with the university and exist as a product of what the community the institution exists in cares about or needs. These specific community organisations relevant to this report include those that are focused around some aspect of climate and health preservation. These community organisations can include but are not limited to local mutual aid initiatives, underserved-resource distribution groups, clean-up and nature conservation groups, community gardeners, and other environmental-related organisations. If your institution does not have access to local volunteerships with community groups, please report any community organisations your institution or school has collaborated with.
- **Climate justice:** The idea that certain population groups and geographical locations which are disproportionately more impacted by climate change are already economically and socially disadvantaged. This double vulnerability sits alongside pre-existing social justice concerns and should therefore shift policy and practice to mitigate the inequitable effects of the climate crisis.
- **Extractivism:** The removal of natural resources typically in large quantities. Within anthropology this term is often used in the context of colonialism to refer to the

historic seizing of natural resources, a practice which has developed business models tied to ecological degradation and loss of biodiversity.

- **Global South:** Nations that often have less economic and industrial development and are typically in the southern hemisphere. These nations have been found to be disproportionately impacted by the climate crisis.
- **Low socioeconomic status (SES):** An individual or geographical area that across a variety of socioeconomic factors (e.g., income, education, race/ethnicity) is considered vulnerable. This vulnerability has been correlated to more adverse health outcomes often as a consequence of encountering more barriers in accessing and receiving healthcare.
- **Low and Middle-Income Countries (LMIC):** Countries that have lower degrees of economic affluence.
- **Anthropogenic:** Created through human activity
- **Marginalized communities:** Groups excluded from mainstream economic, educational, social, and/or cultural experiences due to race, gender identity, sexual orientation, age, physical ability, language, and/or immigration status (Sevelius et al., 2020).

Scoring Matrix

- Elective coursework (1 point): This score applies to material that is actively selected by the students such as a module choice, or additional lecture series. By implication, only a given proportion of the cohort will receive this taught material.
- Brief coverage in the core curriculum (2 points): This score applies where a topic is covered only briefly in a core curriculum session. This implies that the entire cohort receives the same material. At minimum brief inclusion would qualify as inclusion in a single lecture slide in a single year.
- In depth coverage in the core curriculum (3 points): This score applies where a topic is taught in significant detail or where a topic is repeatedly brought up in different years. This might look like several dedicated lecture slides, or inclusion of the same topic in different lectures and teaching formats.

Other considerations:

- If there are more than one “tracks” at your institution with two different curricula (for example, Harvard Medical School has a Pathways and HST curriculum track), you can choose to fill out a report card for each track, or fill out just one report card and average the scores received by each track in cases where the scores are different (see the 2021 Harvard or Oxford report cards as examples). Where possible please indicate the proportion of students that are on each track.

Updated in 2025, a complete literature review by metric is available for the 2024/25 Medicine Report Card Template. This largely translates across disciplines although we are hoping to expand this process across all of our covered disciplines. A link to the 2025 literature review by metric is available [here](#).

Planetary Health Curriculum

Section Overview: *This section evaluates the integration of relevant planetary health topics into the Pharmacy school curriculum. Today's health professional students will be on the frontlines of tackling the health effects of climate and other environmental changes. Therefore, it is critical that students are trained to understand the health effects of these changes, as well as planetary health issues and principles more broadly. Topics like the changing geography of vector-borne diseases, the health consequences of air pollution, environmental health inequities, and disaster response principles must be part of every medical school's core curriculum.*

Curriculum: General

| | |
|---|---|
| 1.1 Does your pharmacy school curriculum address the impacts of extreme weather events on individual health and/or on healthcare systems? | |
| This topic was explored in depth by the core curriculum. (3 points) | |
| This topic was briefly covered in the core curriculum. (2 points) | |
| This topic was covered in elective coursework. (1 point) | |
| This topic was not covered. (0 points) | |
| Score Assigned: | 2 |
| <p><i>The Pharmacotherapy II course focuses on diseases caused by extreme weather events and their treatment processes.</i> Link to Pharmacotherapy II course: https://ebs.istanbul.edu.tr/home/izlence/?id=851873&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim)&yil=2024</p> <p><i>The Public Health course addresses the individual and societal health impacts of extreme weather events within the scope of environmental health and epidemiology.</i> Link to Public Health course: https://ebs.istanbul.edu.tr/home/izlence/?id=603619&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim)&yil=2024</p> | |

| | |
|--|---|
| 1.2 Does your pharmacy school curriculum address the environmental impact of medicines in terms of their pollution, ecological impact and contamination of water systems? | |
| This topic was explored in depth by the core curriculum. (3 points) | |
| This topic was briefly covered in the core curriculum. (2 points) | |
| This topic was covered in elective coursework. (1 point) | |
| This topic was not covered. (0 points) | |
| Score Assigned: | 3 |

The Green Chemistry course focuses on green chemistry and sustainable technologies in the pharmaceutical industry and examines their effects on environmental and human health.

Link to Green Chemistry course:

[https://ebs.istanbul.edu.tr/home/izlence/?id=833514&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)&yil=2024](https://ebs.istanbul.edu.tr/home/izlence/?id=833514&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim)&yil=2024)

The Public Health course addresses the effects of water on environmental health, as well as issues related to water pollution and waste.

Link to Public Health course:

[https://ebs.istanbul.edu.tr/home/izlence/?id=603619&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)&yil=2024](https://ebs.istanbul.edu.tr/home/izlence/?id=603619&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim)&yil=2024)

In the Pharmaceutical Technology I course, the topic of "Pharmaceutical Water" addresses the quality and safety of water used in drug manufacturing and laboratory applications. It also covers solutions and solubility, different liquid mixtures, and the various dosage forms derived from them.

Link to Pharmaceutical Technology I course:

[https://ebs.istanbul.edu.tr/home/izlence/?id=603554&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)&yil=2024](https://ebs.istanbul.edu.tr/home/izlence/?id=603554&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim)&yil=2024)

1.3 Does your pharmacy school curriculum address the health effects of pharmaceutical industry- and manufacturing-related environmental toxins?

This topic was explored **in depth** by the **core** curriculum. (3 points)

This topic was **briefly** covered in the **core** curriculum. (2 points)

This topic was covered in **elective** coursework. (1 point)

This topic was **not** covered. (0 points)

Score Assigned:

3

Pharmaceutical Toxicology course provides information on the physical, chemical, biological, and toxicological analyses and pharmaceutical quality controls of pharmaceutical, biotechnological, and radiopharmaceutical products, as well as their effects on human health.

Link to Pharmaceutical Toxicology course:

<https://ebs.istanbul.edu.tr/home/izlence/?id=603637&bid=1104&yil=2024>

In the Green Chemistry course, the effects of green chemistry and sustainable techniques on the environment and human health, as well as methods for reducing associated risks, are discussed.

Link to Green Chemistry course:

[https://ebs.istanbul.edu.tr/home/izlence/?id=833514&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)&yil=2024](https://ebs.istanbul.edu.tr/home/izlence/?id=833514&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim)&yil=2024)

In the Pharmacy Engineering course, Process Analytical Technology (PAT)

Quality by Design (QbD) processes, an engineering-based approach to pharmaceutical analysis, hygiene and sanitation in drug manufacturing, as well as quality management and quality systems are explained.

Link to Pharmacy Engineering course:

[https://ebs.istanbul.edu.tr/home/izlence/?id=603634&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)&yil=2024](https://ebs.istanbul.edu.tr/home/izlence/?id=603634&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim)&yil=2024)

1.4. Does your pharmacy school curriculum address the carbon footprint of healthcare systems?

This topic was explored **in depth** by the **core** curriculum. (3 points)

This topic was **briefly** covered in the **core** curriculum. (2 points)

This topic was covered in **elective** coursework. (1 point)

This topic was **not** covered. (0 points)

Score Assigned:

1

Green Chemistry and Sustainability course addresses methods for reducing the carbon footprint in pharmaceutical manufacturing by decreasing energy and raw material consumption, promoting production processes that generate less waste and cause less environmental harm, and encouraging the use of renewable energy sources.

Link to Green Chemistry and Sustainability course:

[https://ebs.istanbul.edu.tr/home/izlence/?id=833514&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)&yil=2024](https://ebs.istanbul.edu.tr/home/izlence/?id=833514&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim)&yil=2024)

1.5. Does your pharmacy school curriculum address the impact of climate change on the changing patterns of infectious diseases and increased antimicrobial resistance?

This topic was explored **in depth** by the **core** curriculum. (3 points)

This topic was **briefly** covered in the **core** curriculum. (2 points)

This topic was covered in **elective** coursework. (1 point)

This topic was **not** covered. (0 points)

Score Assigned:

2

In the Pharmaceutical Microbiology course, the global distribution of infectious diseases and the environmental, biological, and social factors influencing this distribution are addressed. In addition, the classification of antibiotics, their spectrum and degree of activity, antimicrobial resistance mechanisms, and fundamental strategies for combating resistance through appropriate antibiotic use are covered.

Link to Pharmaceutical Microbiology course:

[https://ebs.istanbul.edu.tr/home/izlence/?id=603542&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)&yil=2024](https://ebs.istanbul.edu.tr/home/izlence/?id=603542&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim)&yil=2024)

In the Infectious Diseases and Their Factors course, infectious diseases transmitted through various routes and their causative agents are explained.

Link to Infectious Diseases and Their Factors course:

[https://ebs.istanbul.edu.tr/home/izlence/?id=833526&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)&yil=2024](https://ebs.istanbul.edu.tr/home/izlence/?id=833526&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim)&yil=2024)

In the Rational Use of Medicines course, the basic principles of rational drug use, the role of pharmacists, and rational antibiotic use are discussed.

Link to Rational Drug Use course:

[https://ebs.istanbul.edu.tr/home/izlence/?id=846699&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)&yil=2024](https://ebs.istanbul.edu.tr/home/izlence/?id=846699&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim)&yil=2024)

1.6. Does your pharmacy school curriculum address the respiratory health effects of climate change and air pollution?

This topic was explored **in depth** by the **core** curriculum. (3 points)

This topic was **briefly** covered in the **core** curriculum. (2 points)

This topic was covered in **elective** coursework. (1 point)

This topic was **not** covered. (0 points)

Score Assigned:

2

In the Infectious Diseases and Their Factors course, respiratory tract diseases and their causative agents are discussed.

Link to Infectious Diseases and Their Factors

[https://ebs.istanbul.edu.tr/home/izlence/?id=833526&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=833526&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim))

In the Public Health course, the effects of air pollution and climate change on human health are covered.

Link to Public Health course:

[https://ebs.istanbul.edu.tr/home/izlence/?id=603619&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)&yil=2024](https://ebs.istanbul.edu.tr/home/izlence/?id=603619&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim)&yil=2024)

In the Phytotherapy course, herbal methods used for the prevention and treatment of respiratory system diseases are covered.

Link to Phytotherapy course:

[https://ebs.istanbul.edu.tr/home/izlence/?id=603629&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)&yil=2024](https://ebs.istanbul.edu.tr/home/izlence/?id=603629&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim)&yil=2024)

1.7. Does your pharmacy school curriculum address the cardiovascular health effects of climate change, including increased heat?

This topic was explored **in depth** by the **core** curriculum. (3 points)

This topic was **briefly** covered in the **core** curriculum. (2 points)

This topic was covered in **elective** coursework. (1 point)

This topic was **not** covered. (0 points)

Score Assigned:

0

The pharmacy school curriculum does not address the cardiovascular health effects of climate change, including increased heat. Drugs used in cardiovascular diseases are covered in the Pharmacology II course, while rational drug use during the treatment of cardiovascular diseases is addressed in the Rational Drug Use course.

Link to Pharmacology II course:

[https://ebs.istanbul.edu.tr/home/izlence/?id=603551&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)&yil=2024](https://ebs.istanbul.edu.tr/home/izlence/?id=603551&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim)&yil=2024)

Link to Rational Drug Use course:

[https://ebs.istanbul.edu.tr/home/izlence/?id=603582&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)&yil=2024](https://ebs.istanbul.edu.tr/home/izlence/?id=603582&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim)&yil=2024)

1.8. Does your pharmacy school curriculum address the relationship between climate change and allergies?

This topic was explored **in depth** by the **core** curriculum. (3 points)

This topic was **briefly** covered in the **core** curriculum. (2 points)

This topic was covered in **elective** coursework. (1 point)

This topic was **not** covered. (0 points)

Score Assigned:

3

The effects of climate change on allergies are covered in detail within the immunology course, especially in the section on hypersensitivity reactions.

Link to Immunology course:

[https://ebs.istanbul.edu.tr/home/izlence/?id=603553&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)&yil=2024](https://ebs.istanbul.edu.tr/home/izlence/?id=603553&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim)&yil=2024)

The relationship between climate change, environmental factors, and allergic diseases is addressed within the Public Health course, particularly in the context of environmental health and population health effects.

Link to Public Health course:

[https://ebs.istanbul.edu.tr/home/izlence/?id=603619&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)&yil=2024](https://ebs.istanbul.edu.tr/home/izlence/?id=603619&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim)&yil=2024)

1.9. Does your pharmacy school curriculum address the mental health and neuropsychological effects of environmental degradation and climate change?

This topic was explored **in depth** by the **core** curriculum. (3 points)

This topic was **briefly** covered in the **core** curriculum. (2 points)

This topic was covered in **elective** coursework. (1 point)

This topic was **not** covered. (0 points)

| | |
|--|---|
| Score Assigned: | 1 |
| <p><i>The Health Sociology course addresses the psychological effects of environmental degradation on human health that have arisen as a result of the Industrial Revolution and the technological developments of the last century.</i></p> <p>Link to Health Sociology course: https://ebs.istanbul.edu.tr/home/izlence/?id=603604&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim)&yil=2024</p> <p><i>In the Pharmacology II course, autonomic nervous system pharmacology is covered, and neuropsychological effects of drugs affecting neurological conditions are addressed through parasympathomimetic and parasympatholytic agents.</i></p> <p>Link to Pharmacology II course: https://ebs.istanbul.edu.tr/home/izlence/?id=603551&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim)&yil=2024</p> <p><i>In the Public Health course, environmental factors that contribute to health deterioration as a result of climate change are discussed.</i></p> <p>Link to Public Health course: https://ebs.istanbul.edu.tr/home/izlence/?id=603619&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim)&yil=2024</p> | |

| | |
|---|---|
| 1.10. Does your pharmacy school curriculum address the unequal regional health impacts of climate change nationally and globally, including the impact of social inequality? | |
| This topic was explored in depth by the core curriculum. (3 points) | |
| This topic was briefly covered in the core curriculum. (2 points) | |
| This topic was covered in elective coursework. (1 point) | |
| This topic was not covered. (0 points) | |
| Score Assigned: | 2 |
| <p><i>The Public Health course (Turkish syllabus weeks 7, 8, and 9; English syllabus weeks 1 and 11) addresses the unequal regional health impacts of climate change, including the influence of social inequality. These topics are covered in the lecture notes (pages 4-15), which also include the essentials of the Paris Agreement (page 15). Furthermore, the course examines the differing impacts of climate change on developed versus developing countries and their respective roles in mitigation.</i></p> <p>Mentioned lecture notes: https://drive.google.com/drive/folders/176HotYxGBBtmh0UmGzgR-s3XJBgwWOY5?usp=drive_link</p> <p>Link to Public Health course syllabus (Turkish): https://ebs.istanbul.edu.tr/home/izlence/?id=789204&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim)&yil=2024</p> | |

Link to Public Health course syllabus (English):

[https://ebs.istanbul.edu.tr/home/izlence/?id=793401&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=793401&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim))

The Sociology of Health elective mentions the social determinants of health by socioeconomic status, education, and gender.

Link to the Sociology of Health course syllabus (Turkish):

[https://ebs.istanbul.edu.tr/home/izlence/?id=603619&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)&yil=2024](https://ebs.istanbul.edu.tr/home/izlence/?id=603619&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim)&yil=2024)

Link to the Sociology of Health course syllabus (English):

[https://ebs.istanbul.edu.tr/home/izlence/?id=793389&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)&yil=2024](https://ebs.istanbul.edu.tr/home/izlence/?id=793389&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim)&yil=2024)

1.11 Does your pharmacy school curriculum address the relationship between climate change and social determinants of health (e.g., reduced nutritional value of food)?

This topic was explored **in depth** by the **core** curriculum. (3 points)

This topic was **briefly** covered in the **core** curriculum. (2 points)

This topic was covered in **elective** coursework. (1 point)

This topic was **not** covered. (0 points)

Score Assigned:

3

The Public Health course notes that human intrusions into natural systems affect public health and disease transmission.

Link to the Public Health course syllabus (Turkish):

[https://ebs.istanbul.edu.tr/home/izlence/?id=789204&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)&yil=2024](https://ebs.istanbul.edu.tr/home/izlence/?id=789204&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim)&yil=2024)

Link to the Public Health course syllabus (English):

[https://ebs.istanbul.edu.tr/home/izlence/?id=793401&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=793401&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim))

Our Pharmacognosy chair regularly mentioned this topic, focusing on environmental effects on biodiversity and biologically active secondary metabolite discoveries within pharmacognosy.

Link to the Pharmacognosy I course syllabus (English):

[https://ebs.istanbul.edu.tr/home/izlence/?id=781662&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=781662&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim))

Link to the Pharmacognosy II course syllabus (English):

[https://ebs.istanbul.edu.tr/home/izlence/?id=788984&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=788984&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim))

Link to the Pharmacognosy III course (English):

[https://ebs.istanbul.edu.tr/home/izlence/?id=781668&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=781668&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim))

Link to the Pharmacognosy I course syllabus (Turkish): This course's current syllabus is not available; however, you can find it in the curriculum for the fifth semester (3rd year, fall).

<https://ebs.istanbul.edu.tr/home/dersprogram?id=1104&yil=2025>

Link to the Pharmacognosy II course syllabus (Turkish): This course's current syllabus is not available; however, you can find it in the curriculum for the sixth semester (3rd year, spring).

<https://ebs.istanbul.edu.tr/home/dersprogram?id=1104&yil=2025>

Link to the Pharmacognosy III course syllabus (Turkish): This course's current syllabus is not available; however, you can find it in the curriculum for the seventh semester (4th year, fall).

<https://ebs.istanbul.edu.tr/home/dersprogram?id=1104&yil=2025>

The Sociology of Health elective focuses explicitly on the social determinants of health, which climate change unjustly impacts disadvantaged communities.

Link to the Sociology of Health course syllabus (Turkish):

[https://ebs.istanbul.edu.tr/home/izlence/?id=603619&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)&yil=2024](https://ebs.istanbul.edu.tr/home/izlence/?id=603619&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim)&yil=2024)

Link to the Sociology of Health course syllabus (English):

[https://ebs.istanbul.edu.tr/home/izlence/?id=793389&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)&yil=2024](https://ebs.istanbul.edu.tr/home/izlence/?id=793389&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim)&yil=2024)

The Food Toxicology elective examines how changing environmental conditions affect food safety.

Link to the Food Toxicology course syllabus (Turkish):

[https://ebs.istanbul.edu.tr/home/izlence/?id=694987&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=694987&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim))

Link to the Food Toxicology course syllabus (English): This course's current syllabus is not available; however, you can find it in the curriculum for the ninth semester (5th year, fall).

<https://ebs.istanbul.edu.tr/home/dersprogram?id=8161&yil=2025>

1.12. Does your pharmacy school curriculum address the environmental and health co-benefits of a plant-based diet?

This topic was explored **in depth** by the **core** curriculum. (3 points)

This topic was **briefly** covered in the **core** curriculum. (2 points)

This topic was covered in **elective** coursework. (1 point)

This topic was **not** covered. (0 points)

Score Assigned:

2

The Public Health course mentions diverse nutrition types and diets with their importance and effects on public health. Also, mentions environmental health, including air and water pollution.

Link to the Public Health course syllabus (Turkish):

[https://ebs.istanbul.edu.tr/home/izlence/?id=789204&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)&yil=2024](https://ebs.istanbul.edu.tr/home/izlence/?id=789204&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim)&yil=2024)

Link to the Public Health course syllabus (English):

[https://ebs.istanbul.edu.tr/home/izlence/?id=793401&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=793401&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim))

The Pharmacotherapy I course addresses the clinical side of nutrition and the benefits of a plant-based diet.

Link to the Pharmacotherapy I course (English):

[https://ebs.istanbul.edu.tr/home/izlence/?id=846690&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=846690&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim))

The recent Turkish course's syllabus is not available; however, you can find it in the curriculum in the seventh semester (4th year, fall).

The Nutraceuticals and Food Supplements elective provides a detailed definition of "food supplements of plant origin" and the health benefits of them.

Link to the Nutraceuticals and Food Supplements course syllabus (Turkish): This course's current syllabus is not available; however, you can find it in the curriculum for the ninth semester (5th year, fall).

<https://ebs.istanbul.edu.tr/home/dersprogram?id=1104&yil=2024>

The Food Toxicology elective evaluates the different toxicological profiles of dietary choices, including a plant-based diet.

Link to the Food Toxicology course syllabus (Turkish):

[https://ebs.istanbul.edu.tr/home/izlence/?id=694987&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=694987&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim))

Link to the Food Toxicology course syllabus (English): This course's current syllabus is not available; however, you can find it in the curriculum for the ninth semester (5th year, fall).

<https://ebs.istanbul.edu.tr/home/dersprogram?id=8161&yil=2025>

| 1.13. Does your pharmacy school curriculum cover these components of sustainable clinical practice? (1 point each) | Score |
|--|-------|
| Waste production within the healthcare system and strategies for reducing waste in clinical activities such as single use plastic and packaging. (1 point) | 1 |
| Patient counselling on safe disposal of medications. For example, what can be disposed of and how to locate recycling schemes, in addition to certain drugs or drug classes that are | 1 |

| | |
|---|---|
| most important to dispose of properly (e.g. hormonal contraceptives, drugs that are excreted unchanged/active metabolites). (1 point) | |
| The impact of extreme heat, on patients on medications which can interfere with thermoregulation. (1 point) | 1 |
| The impact of anaesthetic gases on the healthcare carbon footprint. (1 point) | 0 |
| The environmental impact of pharmaceuticals and over-prescribing as a cause of climate health harm. Alternatively, teaching on de-prescribing where clinically appropriate and its environmental and health co-benefits would fulfil this metric. (1 point) | 1 |
| The health and environmental co-benefits of non-pharmaceutical management of conditions where appropriate such as exercise or yoga classes for type 2 diabetes; social group activities such as gardening for mental health conditions; active transport such as bicycle schemes for obesity. This is commonly known as social prescribing in the UK. (1 point) | 1 |
| The impact and benefits of benign by design pharmaceuticals through exploring medicinal chemistry concepts and/or discussing implications of excretion of active metabolites/unchanged drug products on ecological systems. (1 point) | 1 |

1) Waste generation within the healthcare system and strategies to reduce waste in clinical activities, such as single-use plastics and packaging, are addressed in the Pharmaceutical Technology series under the heading 'packaging materials of medicines'.

Link to the Introduction to Pharmaceutical Technology course syllabus (English):

[https://ebs.istanbul.edu.tr/home/izlence/?id=793400&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=793400&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim))

Link to the Pharmaceutical Technology I course syllabus (English):

[https://ebs.istanbul.edu.tr/home/izlence/?id=781663&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=781663&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim))

Link to the Pharmaceutical Technology II course syllabus (English):

[https://ebs.istanbul.edu.tr/home/izlence/?id=788985&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=788985&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim))

Link to the Pharmaceutical Technology III course syllabus (English):

[https://ebs.istanbul.edu.tr/home/izlence/?id=781669&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=781669&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim))

Link to the Pharmaceutical Technology I course syllabus (Turkish):

[https://ebs.istanbul.edu.tr/home/izlence/?id=833524&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=833524&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim))

Link to the Pharmaceutical Technology II course syllabus (Turkish):

[https://ebs.istanbul.edu.tr/home/izlence/?id=833583&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=833583&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim))

Link to the Pharmaceutical Technology III course syllabus (Turkish):

[https://ebs.istanbul.edu.tr/home/izlence/?id=833533&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=833533&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim))

Link to the Pharmaceutical Technology IV course syllabus (Turkish):

[https://ebs.istanbul.edu.tr/home/izlence/?id=833594&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=833594&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim))

2) The Public Health course dedicates detailed lessons on waste and contaminated water, helping us to identify what kind of chemicals are harmful, focusing on the public health risks.

The Sustainability in Pharmacy and the Green Chemistry and Sustainability electives address medication and chemical waste and their improper disposal, informing students on the risks and teaching them to implement sustainable practices and educate patients.

Link to the Public Health course syllabus (Turkish):

[https://ebs.istanbul.edu.tr/home/izlence/?id=789204&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)&yil=2024](https://ebs.istanbul.edu.tr/home/izlence/?id=789204&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim)&yil=2024)

Link to the Public Health course syllabus (English):

[https://ebs.istanbul.edu.tr/home/izlence/?id=793401&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=793401&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim))

Link to the Green Chemistry and Sustainability course syllabus (Turkish):

[https://ebs.istanbul.edu.tr/home/izlence/?id=833514&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=833514&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim))

Link to the Sustainability in Pharmacy course syllabus (Turkish):

[https://ebs.istanbul.edu.tr/home/izlence/?id=790262&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)&yil=2025](https://ebs.istanbul.edu.tr/home/izlence/?id=790262&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim)&yil=2025)

Link to the Sustainability in Pharmacy course syllabus (English):

[https://ebs.istanbul.edu.tr/home/izlence/?id=805981&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)&yil=2025](https://ebs.istanbul.edu.tr/home/izlence/?id=805981&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim)&yil=2025)

3) The Pharmacotherapy series and the Pharmaceutical Care course prepare students to manage and counsel for chronic conditions that can be affected by extreme heat due to the condition itself or the drug used for the condition.

Link to the Pharmacotherapy I course (English):

[https://ebs.istanbul.edu.tr/home/izlence/?id=846690&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=846690&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim))

The recent Turkish course's syllabus is not available; however, you can find it in the curriculum in the seventh semester (4th year, fall).

Link to the Pharmacotherapy 2 course syllabus (English):

[https://ebs.istanbul.edu.tr/home/izlence/?id=851873&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)&yil=2025](https://ebs.istanbul.edu.tr/home/izlence/?id=851873&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim)&yil=2025)

Link to the Pharmaceutical Care course syllabus (English):

[https://ebs.istanbul.edu.tr/home/izlence/?id=851874&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=851874&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim))

Link to the Pharmaceutical Care course syllabus (Turkish):

[https://ebs.istanbul.edu.tr/home/izlencekonubaslik/?id=603628&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlencekonubaslik/?id=603628&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim))

4) The impact of anaesthetic gases on the carbon footprint of healthcare is not mentioned in our curriculum.

5) The Pharmacotherapy series and the Rational Drug Use elective teach to avoid over-prescribing, which can mitigate the environmental harm associated with excessive medication loads.

Link to the Pharmacotherapy I course (English):

[https://ebs.istanbul.edu.tr/home/izlence/?id=846690&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=846690&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim))

The recent Turkish course's syllabus is not available; however, you can find it in the curriculum in the seventh semester (4th year, fall).

Link to the Pharmacotherapy II course syllabus (English):

[https://ebs.istanbul.edu.tr/home/izlence/?id=851873&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)&yil=2025](https://ebs.istanbul.edu.tr/home/izlence/?id=851873&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim)&yil=2025)

The recent Turkish course's syllabus is not available; however, you can find it in the curriculum in the eighth semester (4th year, spring).

The link to the Rational Drug Use course syllabus (Turkish):

[https://ebs.istanbul.edu.tr/home/izlence/?id=833622&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)&yil=2025](https://ebs.istanbul.edu.tr/home/izlence/?id=833622&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim)&yil=2025)

The link to the Rational Drug Use course syllabus (English):

[https://ebs.istanbul.edu.tr/home/izlence/?id=784232&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)&yil=2025](https://ebs.istanbul.edu.tr/home/izlence/?id=784232&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim)&yil=2025)

6) The Pharmacotherapy series and the Rational Drug Use elective cover the benefits and importance of non-pharmaceutical management to patient health and the environment.

Link to the Pharmacotherapy I course (English):

[https://ebs.istanbul.edu.tr/home/izlence/?id=846690&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=846690&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim))

The recent Turkish course's syllabus is not available; however, you can find it in the curriculum in the seventh semester (4th year, fall).

Link to the Pharmacotherapy II course syllabus (English):

[https://ebs.istanbul.edu.tr/home/izlence/?id=851873&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)&yil=2025](https://ebs.istanbul.edu.tr/home/izlence/?id=851873&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim)&yil=2025)

The recent Turkish course's syllabus is not available; however, you can find it in the curriculum in the eighth semester (4th year, spring).

The link to the Rational Drug Use course syllabus (Turkish):

[https://ebs.istanbul.edu.tr/home/izlence/?id=833622&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)&yil=2025](https://ebs.istanbul.edu.tr/home/izlence/?id=833622&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim)&yil=2025)

The link to the Rational Drug Use course syllabus (English):

[https://ebs.istanbul.edu.tr/home/izlence/?id=784232&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)&yil=2025](https://ebs.istanbul.edu.tr/home/izlence/?id=784232&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim)&yil=2025)

7) The Pharmaceutical Technology II (Turkish) and Pharmaceutical Technology I (English) courses cover global debate on the negative impact of compressed gases used in pMDI systems on the environment in the 'Aerosols, inhaled products' lecture, also research on formulations containing compressed gases that are less harmful to the environment was discussed.

Link to the Pharmaceutical Technology I course syllabus (English):

[https://ebs.istanbul.edu.tr/home/izlencekonubaslik/?id=781663&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlencekonubaslik/?id=781663&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim))

Link to the Pharmaceutical Technology II course syllabus (Turkish):

[https://ebs.istanbul.edu.tr/home/izlence/?id=833583&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)&yil=2025](https://ebs.istanbul.edu.tr/home/izlence/?id=833583&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim)&yil=2025)

1.14. Does your pharmacy school curriculum discuss the environmental implications of various dosage forms, medication delivery devices, and/or excipients?

This topic was explored **in depth** by the **core** curriculum. (3 points)

This topic was **briefly** covered in the **core** curriculum. (2 points)

This topic was covered in **elective** coursework. (1 point)

This topic was **not** covered. (0 points)

Score Assigned:

3

The Public Health course discusses the environmental effects of pharmaceuticals and other environmental health issues.

Link to the Public Health course syllabus (Turkish):

[https://ebs.istanbul.edu.tr/home/izlence/?id=789204&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)&yil=2024](https://ebs.istanbul.edu.tr/home/izlence/?id=789204&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim)&yil=2024)

Link to the Public Health course syllabus (English):

[https://ebs.istanbul.edu.tr/home/izlence/?id=793401&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=793401&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim))

The Pharmaceutical Technology series provides an introduction to the core concepts of active ingredients and excipients, focusing on the formulation, stability, and manufacturing technology of dosage forms, establishing a foundational understanding of the chemicals and materials used in drugs and their effects on the environment. Specifically, Pharmaceutical Technology III includes environmental protection by covering aerosol and inhaler devices and their proper disposal to prevent environmental contamination.

Link to the Introduction to Pharmaceutical Technology course syllabus (English):

[https://ebs.istanbul.edu.tr/home/izlence/?id=793400&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=793400&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim))

Link to the Pharmaceutical Technology I course syllabus (English):

[https://ebs.istanbul.edu.tr/home/izlence/?id=781663&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=781663&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim))

Link to the Pharmaceutical Technology II course syllabus (English):

[https://ebs.istanbul.edu.tr/home/izlence/?id=788985&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=788985&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim))

Link to the Pharmaceutical Technology III course syllabus (English):

[https://ebs.istanbul.edu.tr/home/izlence/?id=781669&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=781669&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim))

Link to the Pharmaceutical Technology I course syllabus (Turkish):

[https://ebs.istanbul.edu.tr/home/izlence/?id=833524&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=833524&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim))

Link to the Pharmaceutical Technology II course syllabus (Turkish):

[https://ebs.istanbul.edu.tr/home/izlence/?id=833583&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=833583&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim))

Link to the Pharmaceutical Technology III course syllabus (Turkish):

[https://ebs.istanbul.edu.tr/home/izlence/?id=833533&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=833533&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim))

Link to the Pharmaceutical Technology IV course syllabus (Turkish):

[https://ebs.istanbul.edu.tr/home/izlence/?id=833594&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=833594&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim))

The Pharmaceutical Biotechnology course briefly mentions how sustainable manufacturing using targeted delivery systems and biodegradable biopolymer-based devices reduces waste.

Link to the Pharmaceutical Biotechnology course syllabus (English):

[https://ebs.istanbul.edu.tr/home/izlence/?id=788994&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)&yil=2025](https://ebs.istanbul.edu.tr/home/izlence/?id=788994&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim)&yil=2025)

Link to the Pharmaceutical Biotechnology course syllabus (Turkish):

[https://ebs.istanbul.edu.tr/home/izlence/?id=833558&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=833558&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim))

The Sustainability in Pharmacy elective discusses the management of pharmaceutical waste and the professional's role in mitigating it.

Link to the Sustainability in Pharmacy course syllabus (Turkish):

[https://ebs.istanbul.edu.tr/home/izlence/?id=790262&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)&yil=2025](https://ebs.istanbul.edu.tr/home/izlence/?id=790262&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim)&yil=2025)

Link to the Sustainability in Pharmacy course syllabus (English):

[https://ebs.istanbul.edu.tr/home/izlence/?id=805981&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)&yil=2025](https://ebs.istanbul.edu.tr/home/izlence/?id=805981&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim)&yil=2025)

The Green Chemistry and Sustainability elective covers the principles of green chemistry, focusing on minimising or eliminating harmful substances present in chemical processes, and also discusses more eco-friendly methods, such as supercritical fluid technology.

Link to the Green Chemistry and Sustainability course syllabus (Turkish):

[https://ebs.istanbul.edu.tr/home/izlence/?id=833514&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=833514&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim))

The Industrial Applications for Liquid and Semisolid Dosage Forms elective discusses how industrial-scale production selects raw materials and manufactures efficiently, reducing environmental damage.

Link to the Industrial Applications for Liquid and Semisolid Dosage Forms course syllabus (English):

[https://ebs.istanbul.edu.tr/home/izlence/?id=806121&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)&yil=2025](https://ebs.istanbul.edu.tr/home/izlence/?id=806121&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim)&yil=2025)

1.15. In training for patient communication, does your pharmacy school's curriculum introduce strategies for having conversations with patients about the health effects of climate change?

Yes, there are clear and detailed strategies introduced for having conversations with patients about climate change in the core curriculum (3 points)

Yes, having conversations with patients about climate change is briefly mentioned in the core curriculum. (2 points)

Yes, there are some examples of having conversations with patients about climate change in elective coursework. (1 point)

No, there are no strategies or examples for having conversations with patients about climate change (0 points)

Score Assigned:

3

The Public Health course provides the necessary knowledge for these conversations by teaching the health impacts of environmental factors.

Link to the Public Health course syllabus (Turkish):

[https://ebs.istanbul.edu.tr/home/izlence/?id=789204&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)&yil=2024](https://ebs.istanbul.edu.tr/home/izlence/?id=789204&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim)&yil=2024)

Link to the Public Health course syllabus (English):

[https://ebs.istanbul.edu.tr/home/izlence/?id=793401&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=793401&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim))

The Pharmacotherapy series teaches how climate change aggravates respiratory system disorder conditions and dermatologic disorders; using this knowledge helps counsel patients on the health effects of climate change.

Link to the Pharmacotherapy I course (English):

[https://ebs.istanbul.edu.tr/home/izlence/?id=846690&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=846690&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim))

The recent Turkish course's syllabus is not available; however, you can find it in the curriculum in the seventh semester (4th year, fall).

Link to the Pharmacotherapy II course syllabus (English):

[https://ebs.istanbul.edu.tr/home/izlence/?id=851873&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)&yil=2025](https://ebs.istanbul.edu.tr/home/izlence/?id=851873&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim)&yil=2025)

The recent Turkish course's syllabus is not available; however, you can find it in the curriculum in the eighth semester (4th year, spring).

The Pharmaceutical Technology II (Turkish) and Pharmaceutical Technology I (English) course mentions the proper disposal of inhaler devices to prevent environmental contamination. This training allows us to communicate with the patients on how sustainable treatment practices mitigate the reciprocal health impacts of climate change.

Link to the Pharmaceutical Technology I course syllabus (English):

[https://ebs.istanbul.edu.tr/home/izlencekonubaslik/?id=781663&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlencekonubaslik/?id=781663&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim))

Link to the Pharmaceutical Technology II course syllabus (Turkish):

[https://ebs.istanbul.edu.tr/home/izlence/?id=833583&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)&yil=2025](https://ebs.istanbul.edu.tr/home/izlence/?id=833583&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim)&yil=2025)

The Infectious Diseases and Their Factors elective briefly mentions altering environmental conditions due to climate change affects the spread of vector-borne and waterborne diseases, thus allowing us to communicate this knowledge with the patients on the rising risk of infections with climate change.

Link to the Infectious Diseases and Their Factors course syllabus (Turkish):

[https://ebs.istanbul.edu.tr/home/izlence/?id=833526&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)&yil=2025](https://ebs.istanbul.edu.tr/home/izlence/?id=833526&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim)&yil=2025)

The Rational Drug Use elective teaches how to communicate rational drug use meanwhile mentioning informing vulnerable groups affected more by the health impacts of climate change.

The link to the Rational Drug Use course syllabus (Turkish):

[https://ebs.istanbul.edu.tr/home/izlence/?id=833622&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)&yil=2025](https://ebs.istanbul.edu.tr/home/izlence/?id=833622&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim)&yil=2025)

The link to the Rational Drug Use course syllabus (English):

[https://ebs.istanbul.edu.tr/home/izlence/?id=784232&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)&yil=2025](https://ebs.istanbul.edu.tr/home/izlence/?id=784232&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim)&yil=2025)

1.16. Does your pharmacy school curriculum guide students to consider the environmental impact of medications as a factor in addition to safety, efficacy, cost, and pill burden when comparing equivalent therapies?

This topic was explored **in depth** by the **core** curriculum. (3 points)

This topic was **briefly** covered in the **core** curriculum. (2 points)

This topic was covered in **elective** coursework. (1 point)

This topic was **not** covered. (0 points)

Score Assigned:

3

The Pharmacotherapy series and the Rational Drug Use elective not only trains students to evaluate pharmacotherapy protocols not only by clinical requirement and lowest treatment cost but also briefly integrates environmental sustainability into the course considering ecological footprint thereby again supporting public health.

Link to the Pharmacotherapy I course (English):

[https://ebs.istanbul.edu.tr/home/izlence/?id=846690&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=846690&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim))

The recent Turkish course's syllabus is not available; however, you can find it in the curriculum in the seventh semester (4th year, fall).

Link to the Pharmacotherapy II course syllabus (English):

[https://ebs.istanbul.edu.tr/home/izlence/?id=851873&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)&yil=2025](https://ebs.istanbul.edu.tr/home/izlence/?id=851873&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim)&yil=2025)

The recent Turkish course's syllabus is not available; however, you can find it in the curriculum in the eighth semester (4th year, spring).

The link to the Rational Drug Use course syllabus (Turkish):

[https://ebs.istanbul.edu.tr/home/izlence/?id=833622&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)&yil=2025](https://ebs.istanbul.edu.tr/home/izlence/?id=833622&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim)&yil=2025)

The link to the Rational Drug Use course syllabus (English):

[https://ebs.istanbul.edu.tr/home/izlence/?id=784232&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)&yil=2025](https://ebs.istanbul.edu.tr/home/izlence/?id=784232&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim)&yil=2025)

The Pharmaceutical Technology series provides a foundational understanding of the chemicals, materials, and primary and secondary packaging used in medications, as well as the proper disposal of medications, encouraging students to address the long-term environmental fate of medication-related waste and make choices accordingly.

Link to the Introduction to Pharmaceutical Technology course syllabus (English):

[https://ebs.istanbul.edu.tr/home/izlence/?id=793400&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=793400&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim))

Link to the Pharmaceutical Technology I course syllabus (English):

[https://ebs.istanbul.edu.tr/home/izlence/?id=781663&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=781663&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim))

Link to the Pharmaceutical Technology II course syllabus (English):

[https://ebs.istanbul.edu.tr/home/izlence/?id=788985&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=788985&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim))

Link to the Pharmaceutical Technology III course syllabus (English):

[https://ebs.istanbul.edu.tr/home/izlence/?id=781669&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=781669&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim))

Link to the Pharmaceutical Technology I course syllabus (Turkish):

[https://ebs.istanbul.edu.tr/home/izlence/?id=833524&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=833524&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim))

Link to the Pharmaceutical Technology II course syllabus (Turkish):

[https://ebs.istanbul.edu.tr/home/izlence/?id=833583&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=833583&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim))

Link to the Pharmaceutical Technology III course syllabus (Turkish):

[https://ebs.istanbul.edu.tr/home/izlence/?id=833533&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=833533&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim))

Link to the Pharmaceutical Technology IV course syllabus (Turkish):

[https://ebs.istanbul.edu.tr/home/izlence/?id=833594&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=833594&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim))

The Sustainability in Pharmacy and the Green Chemistry and Sustainability electives discuss the principles of green biotechnology and waste minimization, which leads students to identify and apply the most eco-friendly treatment paths.

Link to the Sustainability in Pharmacy course syllabus (Turkish):

[https://ebs.istanbul.edu.tr/home/izlence/?id=790262&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)&yil=2025](https://ebs.istanbul.edu.tr/home/izlence/?id=790262&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim)&yil=2025)

Link to the Sustainability in Pharmacy elective course (English):

[https://ebs.istanbul.edu.tr/home/izlence/?id=805981&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)&yil=2025](https://ebs.istanbul.edu.tr/home/izlence/?id=805981&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim)&yil=2025)

Link to the Green Chemistry and Sustainability course syllabus (Turkish):

[https://ebs.istanbul.edu.tr/home/izlence/?id=833514&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=833514&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim))

1.17. Is your pharmacy school currently in the process of implementing or improving Education for Sustainable Healthcare (ESH)/planetary health education?

Yes, the school is currently in the process of making major improvements to ESH/planetary health education. (4 points)

Yes, the school is currently in the process of making minor improvements to ESH/planetary health education. (2 points)

No, there are no improvements to planetary health education in progress. (0 points)

Score Assigned:

4

The goal of the Green Chemistry and Sustainability course is to train competent pharmacists who understand the concepts of green chemistry and sustainability, their applications in the healthcare field, and their application in the pharmaceutical industry. Link to the Green Chemistry and Sustainability course:

[https://ebs.istanbul.edu.tr/home/izlence/?id=833514&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=833514&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim))

1.18. Does your pharmacy school have a member of faculty to incorporate planetary health and sustainable healthcare as a theme throughout the curriculum?

Yes, there is/are a member(s) of faculty whose role is directly responsible for the incorporation of planetary health and sustainable healthcare as a theme throughout the curriculum (4 points)

Yes, there is/are member(s) of faculty who are incorporating planetary health and sustainable healthcare as a theme throughout the curriculum as well as doing their principle role (2 points)

There are no members of faculty who are incorporating planetary health and sustainable healthcare as a theme throughout the curriculum (0 points)

Score Assigned:

2

The 'Biodiversity and Conservation of Medicinal Plants' is an elective course given by Prof. Dr. Emine Akalın from the Department of Pharmaceutical Botany, This course aims to train pharmacists who are knowledgeable about the importance of Türkiye's biodiversity for the sustainable use of medicinal plants used as medicines or pharmaceutical ingredients, access to potential new resources, and especially how to conserve medicinal plants.

Link to the lecture:

[https://ebs.istanbul.edu.tr/home/izlence/?id=691995&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=691995&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim))

'Green Chemistry and Sustainability' elective course is carried out by Prof. Dr. Sıdıka Toker from the Department of Analytical Chemistry.

Link to the lecture:

[https://ebs.istanbul.edu.tr/home/izlence/?id=833514&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=833514&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim))

The compulsory 'Public Health' class, aims to educate those who will enter the pharmacy profession so that they can fulfill their responsibility for the health of individuals and society; accordingly, the course covers environmental health and its effects on human health.

Link to the lecture:

[https://ebs.istanbul.edu.tr/home/izlence/?id=793401&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=793401&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim))

The lecturers of the courses we mentioned in this section are members of our faculty's Curriculum Development Commission. As a result, they actively integrate planetary health and sustainability into the curriculum alongside their principal teaching roles. Therefore, we have scored this metric

as 2. We have attached a link to the Curriculum Commission as evidence:
<https://eczacilik.istanbul.edu.tr/tr/content/fakultemiz/komisyonlar-ve-kurullar>

1.19. Does your pharmacy school curriculum offer clinical practice experiences (for example, IPPE/APPE rotations in the U.S. or placement opportunities in the UK) that allow for the exploration of planetary health topics?

There are multiple clinical practice experiences/placements that allow for direct exposure to planetary health topics. (3 points)

There is one available clinical practice experience/placement that allows for direct exposure to planetary health topics. (2 points)

There are available clinical practice experiences/placements that allow for indirect exposure to planetary health topics. (1 point)

No, there are no such clinical practice experiences/placements available through the pharmacy school. (0 points)

Score Assigned:

1

These topics are referred to in the clinical pharmacy course and a more effective learning experience is provided with the PBL (problem-based learning) system. In addition, pharmacy, hospital and industry internships and practices cover this subject in excess.

Link to the Clinical Pharmacy Course:

[https://ebs.istanbul.edu.tr/home/izlenec/?id=846702&bid=8161&birim=eczacilik_\(ingilizce\)_lisa%20ns_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlenec/?id=846702&bid=8161&birim=eczacilik_(ingilizce)_lisa%20ns_programi_(orgun_ogretim))

1.20. Does your pharmacy school curriculum acknowledge a disparity in the effects of climate change? Specifically, does your curriculum address groups more vulnerable to environmental impacts, such as BIPOC, immigrant groups, low income populations, children, elderly, persons with disabilities, persons with pre-existing or chronic medical conditions?

This topic was explored **in depth** by the **core** curriculum. (3 points)

This topic was **briefly** covered in the **core** curriculum. (2 points)

This topic was covered in **elective** coursework. (1 point)

This topic was **not** covered. (0 points)

Score Assigned:

0

The disparate and disproportionate impacts of climate change on vulnerable groups is not specifically taught as a component of the curriculum, unfortunately leading to a score of 0 for this

metric. However, vulnerable groups are explored in the pharmacy curriculum and represent a good opportunity to integrate teaching on the health impacts of climate change here also in the future.

Vulnerable patient population groups are briefly discussed in the Rational Drug Use, Pharmacotherapy, and Pharmaceutical Care courses regarding drug use in specific patient groups.

In the elective course Rational Drug Use, pharmacy students are taught rational drug use in specific patient groups (children, the elderly, patients with liver and kidney failure).

Link to the Rational Drug Use course:

[https://ebs.istanbul.edu.tr/home/izlence/?id=846699&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=846699&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim))

The goal of the compulsory Pharmaceutical Care course is to equip pharmacists with the competence to manage, monitor, and control drug therapy in chronic diseases by enabling them to evaluate clinical findings/data related to the patient, identify and prevent drug-related problems, strengthen patient adherence to treatment, and also to inquire about and interpret the socio-cultural background of patients.

Link to the Pharmaceutical Care course:

[https://ebs.istanbul.edu.tr/home/izlence/?id=851874&bid=8161&birim=eczacilik_\(ingilizce\)_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=851874&bid=8161&birim=eczacilik_(ingilizce)_lisans_programi_(orgun_ogretim))

Link to the Pharmacotherapy course:

[https://ebs.istanbul.edu.tr/home/izlence/?id=833545&bid=1104&birim=eczacilik_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/izlence/?id=833545&bid=1104&birim=eczacilik_lisans_programi_(orgun_ogretim))

1.21. Does your health professional curriculum include teaching on civic engagement/advocacy to address the environmental and structural determinants of health?

This topic was explored **in depth** by the **core** curriculum. (3 points)

This topic was **briefly** covered in the **core** curriculum. (2 points)

This topic was covered in **elective** coursework. (1 point)

This topic was **not** covered. (0 points)

Score Assigned:

0

New metric for 2025/26 PHRC. This metric highlights the role of healthcare professionals as advocates for their patients beyond just clinical care. As trusted voices, health professionals have significant influence on policy and public perceptions of the environmental and social determinants of health. Public policy profoundly impacts our health across areas of housing, food, access to healthcare and indirectly through climate and environmental policies. In many healthcare systems internationally advocacy by healthcare professionals is increasingly viewed as an ethical imperative and professional duty.

To learn more about this topic and the importance for healthcare professionals please review the following resources:

- [Why and How Civic Health Should Be Incorporated Into Medical Education](#). Barrere-Cain et al., 2022. *Academic Medicine*.
- [Civic Engagement: A Vital Sign of Health and Democracy](#). Philip M. Alerbti. AAMC.

For practical guidance on incorporating this into your health professional curriculum:

- CRHE Module: [Interaction between health care systems, government policy, and environmental advocacy](#).
- Medical Schools Council (UK), [Education for Sustainable Healthcare. A curriculum for the UK](#). Page 21. Professionalism, leadership and achieving structural change.

Although the curriculum includes topics on environmental health and sustainability, it does not address civic participation/advocacy.

Section Total (46 out of 69)

67%

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1) *ISTE Herbarium: Home to 90,000 plant specimens, 75% of the plant diversity in Turkiye and 90% of Istanbul and its surroundings. Istanbul University Faculty of Pharmacy Herbarium is a university herbarium and its foundation dates back to 1945. This herbarium, which was created by collecting samples of medicinal plants of Turkey in the Pharmacognosy Chair in the Pharmacy School of the Faculty of Medicine, was transferred to this chair with 7760 plant samples after the establishment of the Pharmaceutical Botany Chair in 1964. Today, the herbarium, which carries out its activities under the Department of Pharmaceutical Botany, was renamed ISTE in 1956 with its international code. Approximately 95% of the dried plant specimens in ISTE, where medicinal plants are well represented due to its location within the Faculty of Pharmacy and Istanbul and Thrace plants are well represented due to its location, are specimens collected from Turkey. ISTE herbarium has a rich collection in terms of families such as Papaveraceae, Labiatae, Liliaceae, Solanaceae, Scrophulariaceae, Apocynaceae, Malvaceae, Rhamnaceae where medicinal plants are dense. The collection of around 90.000 dried plant specimens includes 87 typuses (first named species specimens) and 122 photographs of type specimens and all monotypic (single species) endemic genera in the flora of Turkey. In addition, genera such as Allium, Arum, Asphodeline, Colchicum, Crocus, Cyclamen, Euphorbia, Ferulago, Helichrysum, Hypericum, Iris, Papaver, Rosa, Salvia, Sedum, Tulipa are represented by a large number of species in ISTE as they are collected for systematic or chemical studies. It was published by Prof. P. H. Davis in 9 volumes between 1965-1985.*

ISTE Website: <https://iste.istanbul.edu.tr/tr/>

2) *A detailed research on the Honey Plants of Istanbul was carried out by academicians from Pharmaceutical Botany at the Faculty of Pharmacy and a Honey Plants Herbarium was established at the Faculty. As a result of a ten-year study in Turkey, 122 ÖBAs (Important Plant Areas) were identified in the early 2000s with the co-operation of approximately 40 scientists and experts from 20 universities. These areas, which were determined based on scientific research and international ÖBA criteria, were published in the book '122 Important Plant Areas of Turkey' in 2005. In this book, the botanical, geographical and geological characteristics of 122 ÖBAs were presented to the public with maps and photographs and the dangers they face were pointed out. Soon afterwards, 22 more ÖBAs were identified in 10 provinces in eastern Turkey where the Baku-Tbilisi-Ceyhan (BTC) Oil Pipeline passes through*

Research: <https://iste.istanbul.edu.tr/tr/content/bilimsel-calismalar/kitaplar>

Herbarium: <https://iste.istanbul.edu.tr/tr/content/koleksiyonlar/balli-bitkiler-herbaryumu>

Protecting Plants:

<https://iste.istanbul.edu.tr/tr/content/turkiye-bitkileri-ve-korunmasi/istanbul'un-balli-bitkileri>

3) There is an Ethnobotanical collection located in the Faculty of Pharmacy.

<https://iste.istanbul.edu.tr/tr/content/koleksiyonlar/etnobotanik-koleksiyonu>

<https://www.istanbul.edu.tr/tr/haber/iu-eczacilik-fakultesi-etnobotanik-koleksiyonu-kulturel-zenginligi-mizi-yansitiyo-4C00370065006F003900540036003400350054006B003100>

Interdisciplinary Research

Section Overview: This section evaluates the quality and quantity of interdisciplinary planetary health research at the broader institution. Interactions between health and the environment are complex and multifactorial. While climate change has been extensively studied from an environmental science perspective, planetary health is an emerging field. As leading health institutions with talented researchers and research resources, institutions should fund research studying the health effects of climate change and anthropogenic environmental toxins. This obligation is particularly strong because the public and policymakers are more attentive to climate change when its implications for human health are emphasised.

| | |
|---|---|
| 2.1. Are there researchers engaged in planetary health research and healthcare sustainability research at your <u>institution</u>? | |
| Yes, there are faculty members at the institution who have a primary research focus in planetary health or sustainable healthcare/vetcare. (3 points) | |
| Yes, there are individual faculty members at the institution who are conducting research related to planetary health or healthcare sustainability, OR are part of a national/international sustainability working group, but it is not their primary research focus. (2 points) | |
| There are sustainability researchers at the institution , but not specifically associated with healthcare/vetcare. (1 point) | |
| No, there are no planetary health and/or sustainability researchers at the institution at this time. (0 points) | |
| Score Assigned: | 2 |
| <p><i>Although there are no academics at Istanbul University Faculty of Pharmacy who work exclusively on sustainability and ecology, some academics conduct research on these topics in addition to their main fields of study. You can find the works of Prof. Dr. Emine Akalin and Assoc. Prof. Dr.Mehtap Kara at our faculty below.</i></p> <p>https://avesis.istanbul.edu.tr/akaline/ https://avesis.istanbul.edu.tr/mehtap.kara/</p> <p><i>Our school has a book titled ‘Effects of Global Warming on Floristic Diversity and Endemism’ written by Prof. Dr. Mine Koçyiğit Avcı from the Department of Pharmaceutical Botany.</i></p> <p><i>You can access the summary of the book by following the link below:</i></p> <p>https://avesis.istanbul.edu.tr/yayin/4c4d3b72-84b5-4a5e-a05d-4b887a346722/ecological-dynamics-in-the-face-of-climate-change</p> <p><i>Other interdisciplinary research conducted with the participation of faculty academics:</i></p> <p><i>The research titled ‘Alterations in cell viability, reactive oxygen species production, and modulation of gene expression involved in mitogen-activated protein kinase/extracellular regulating kinase signaling pathway by glyphosate and its commercial formulation in hepatocellular carcinoma cells’, in which Prof. Sibel Özden from our faculty participated, investigated the toxic effects of glyphosate – a non-selective organophosphate herbicide widely</i></p> | |

used in agriculture and forestry – and its commercial formulation on human hepatocellular carcinoma cell lines.

The abstract of the article can be accessed via the following link:

<https://avesis.istanbul.edu.tr/yayin/22ba2d5e-9ff6-4034-a4a8-18048ad83eb2/alterations-in-cell-viability-reactive-oxygen-species-production-and-modulation-of-gene-expression-involved-in-mitogen-activated-protein-kinase-extracellular-regulating-kinase-signaling-pathway-by-glyphosate>

Our faculty members Research Assistant Özge Sultan Zengin, Assoc. Prof. Dr. Mehtap Kara, and Prof. Dr. Gül Özhan conducted a study titled ‘An evaluation of a hepatotoxicity risk induced by the microplastic polymethyl methacrylate (PMMA) using HepG2/THP-1 co-culture model.’ This research investigated the toxic effects of polymethyl methacrylate (PMMA), a commonly used thermoplastic, on the human liver using a sensitive immune-mediated liver injury model.

The abstract of the article can be accessed via the following link:

<https://avesis.istanbul.edu.tr/yayin/d8294f83-4123-4cf3-86fe-c1953afb8e95/an-evaluation-of-a-hep-atotoxicity-risk-induced-by-the-microplastic-polymethyl-methacrylate-pmma-using-hepg2-thp-1-co-culture-model#>

2.2. Is there a dedicated department or institute for interdisciplinary planetary health research at your institution?

There is **at least one** dedicated department or institute for interdisciplinary planetary health research. (3 points)

There is **not currently** a department or institute for interdisciplinary planetary health research, but there are **plans** to open one in the next 3 years. (2 points)

There is an **Occupational and Environmental Health department**, but no interdisciplinary department or institute for planetary health research. (1 point)

There is **no** dedicated department or institute. (0 points)

Score Assigned:

1

Faculty has an Environmental Management Unit:

<https://eczacilik.istanbul.edu.tr/en/content/faculty/commissions-and-councils>

There are centers affiliated to the university rectorate. Some of them can be accessed from the links below:

<https://dozem.istanbul.edu.tr/tr/>

<https://naturaldrugs.istanbul.edu.tr/tr/>

2.3. Is there a process by which communities disproportionately impacted by climate change and environmental injustice give input or make decisions about the research agenda at your institution?

Yes, there is a process in which community members impacted by climate and environmental injustice have **decision-making power** in the climate + environmental research agenda. (3 points)

Yes, there is a process in which community members impacted by climate and environmental injustice **advise** the climate + environmental research agenda. (2 points)

No, but there are **current efforts** to establish a process for community members to advise or make decisions on the research agenda. (1 point)

There is **no** process, and **no** efforts to create such a process. (0 points)

Score Assigned:

0

We could not find any process or effort to create such a process at our institution. However, the faculty does have Sustainable Development Board Members.

<https://eczacilik.istanbul.edu.tr/en/content/faculty/commissions-and-council>

2.4. Does your institution have a planetary health website that centralises ongoing and past research related to health and the environment?

There is an **easy-to-use, adequately comprehensive** website that **centralises** various campus resources related to health and the environment including all of the following: upcoming events, leaders in planetary health at your institution, and relevant funding opportunities. (3 points)

There is a website that **attempts to centralise** various campus resources related to health and the environment, but it is hard-to-use, not updated, or not adequately comprehensive. (2 points)

The **institution** has an **Office of Sustainability website** that includes **some** resources related to health and the environment. (1 point)

There is **no** website. (0 points)

Score Assigned:

0

Istanbul University does not have a website that centralizes news on planetary health and sustainability. This news is available on the university's registered news site called 'İletim Gazetesi'. You can access İletim Gazetesi via the following link:

<https://iletim.istanbul.edu.tr/>

2.5. Has your institution recently hosted a conference or symposium on topics related to planetary health?

| | |
|---|---|
| Yes, the institution has hosted at least one conference or symposium on topics related to planetary health in the past year. (4 points) | |
| Yes, the institution has hosted at least one conference or symposium on topics related to sustainable healthcare/vetcare in the past year. (3 points) | |
| Yes, the institution has hosted a conference on topics related to planetary health / sustainable healthcare/vetcare in the past three years. (2 points) | |
| The institution has not hosted any conferences directly, but they have provided financial support for a local planetary health event. (1 point) | |
| No, the institution has not hosted a conference on topics related to planetary health in the past three years. (0 points) | |
| Score Assigned: | 4 |
| <p><i>In addition to participating in congresses and panels organized throughout Istanbul University, our faculty also hosted 'Biodiversity Day: Harmony with nature and sustainable development' panel.</i></p> <p><i>Detailed information about the panels can be found at the following link:</i> https://eczacilik.istanbul.edu.tr/tr/etkinlik/22-mayis-biyocesitlilik-gunu-7500520031002D0077004A006A00690056006F00500039007900700046006200610041004F003200370077003200</p> <p><i>You can also access the post of the panel from the link below:</i> https://www.instagram.com/p/DJt4rb0qKxJ/?igsh=MXVsemVsMTlyOWpoeQ%3D%3D</p> | |

| | |
|--|---|
| 2.6. Is your <u>institution</u> a member of a national or international planetary health or ESH/ESV organisation? | |
| Yes, the institution is a member of a national or international planetary health or ESH/ESV organisation. (1 point) | |
| No, the institution is not a member of such an organisation. (0 points) | |
| Score Assigned: | 0 |
| <p><i>There are no planetary health organizations in Türkiye. Furthermore, the institution is not a member of any international planetary health organization.</i></p> | |

| | |
|------------------------------------|------------|
| Section Total (7 out of 17) | 41% |
|------------------------------------|------------|

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Community Outreach and Advocacy

Section Overview: This section evaluates a school's engagement in community outreach and advocacy efforts associated with planetary health. Researching and teaching planetary health is necessary but not sufficient. It is critical that institutions also directly engage with communities most affected by environmental health harms. Although climate change is a problem largely created by those with power and resources, its impacts fall disproportionately on under-resourced populations and communities of colour. Institutions should partner with local communities affected by climate change and pollution to share information about environmental health threats, advocate together for change, and provide opportunities for students to be a part of this work.

3.1. Does your **institution** partner with community organisations to promote planetary health?

Yes, the **institution** meaningfully partners with **multiple** community organisations to promote planetary and environmental health. (3 points)

Yes, the **institution** meaningfully partners with **one** community organisation to promote planetary and environmental health. (2 points)

The **institution** does not partner with community organisations, but participates in community focused events relating to planetary health. (1 point)

No, there is **no** such meaningful community partnership. (0 points)

Score Assigned:

1

Istanbul University cooperates with GENÇ TEMA (Türkiye Erozyonla Mücadele, Ağaçlandırma ve Doğal Varlıkları Koruma Vakfı) Foundation to support environmental health and planetary health. Thanks to this cooperation, university students participate in projects that raise public awareness about environmental protection and sustainability. Students are actively involved in activities such as tree planting, raising awareness about climate change and environmental issues. These projects enable students to help the community in environmental health and take important steps towards a sustainable future.

There are Faculty of Pharmacy Farmaekoloji Club, Faculty of Economics Ecology Club, Faculty of Literature Ecology Club, Faculty of Water Sciences Ecology and Camping Club within the Istanbul University.

You can access the list of student clubs via the link below:

<https://sks.istanbul.edu.tr/ogrenci-kultur-merkezi-kulup-listesi>

3.2. Does your **institution** offer community-facing courses or events regarding planetary health?

The **institution** offers community-facing courses or events at least once every year. (3 points)

The **institution** offers courses or events open to the community at least once per year, but they are not primarily created for a community audience. (2 points)

The **institution** has promoted community-facing courses or events, but was not involved in planning those courses or events. (1 point)

The **institution** has not offered such community-facing courses or events. (0 points)

Score Assigned:

3

Istanbul University Continuing Education Centre offers many courses and certificate programmes that aim to raise public awareness on sustainability, ecology and planetary health. Courses such as Agricultural Sustainability, Green Transformation, Sustainability Communication, Environmental Health and Safety in Businesses not only provide participants with knowledge in these areas, but also teach them how to apply this knowledge in their daily and professional lives. These trainings encourage society and organisations to take conscious steps towards a more sustainable future.

<https://sfk.istanbul.edu.tr/yesil-donusum-sertifika-programi>

<https://sfk.istanbul.edu.tr/surdurulebilirlik-iletisimi-sertifika-programi>

<https://sfk.istanbul.edu.tr/tarimsal-surdurulebilirlik-sertifika-programi>

<https://sfk.istanbul.edu.tr/isletmelerde-cevre-sagligi-ve-guvenligi-egitimi-sertifika-programi>

Every year, a panel is organised by the Farmaekoloji Club at the Faculty of Pharmacy on 22 May Biodiversity Day. Topics discussed in 2025: “Harmony with Nature and Sustainability”

Post of the event :

https://www.instagram.com/p/DJt4rb0qKxJ/?img_index=1

3.3. Does your **institution** have regular coverage of issues related to planetary health and/or sustainable healthcare in university update communications?

Yes, all students **regularly** receive communication updates dedicated to planetary health and/or sustainable healthcare. (2 points)

Yes, planetary health and/or sustainable healthcare topics are regularly included in communication updates to **some courses**. (1 point)

Students **do not** receive communications about planetary health or sustainable healthcare. (0 points)

Score Assigned:

1

Announcements specifically targeting planetary health have yet to appear on Istanbul University’s official announcement page, but a post regarding sustainable health has been published. The link to the aforementioned announcement:

<https://www.istanbul.edu.tr/tr/haber/surdurulebilir-saglik-icin-cozum-arayisi-turkiye-raporu-2014-toplantisi-gercekle-6D005900610056006E0058004C0075003600750063003100>

Although *İletim Gazetesi*, the practice newspaper of Istanbul University's Faculty of Communication students, does not feature news regarding sustainable healthcare services, reports on climate change are published periodically. A link to one such report is provided below: <https://iletim.istanbul.edu.tr/index.php/2025/12/19/yeni-dunyanin-sorunu-iklim-krizi/>

3.4. Does the institution or main affiliated hospital trust engage in professional education activities targeting individuals post-graduation with the aim of ensuring their knowledge and skills in planetary health and sustainable healthcare remain up to date during their professional career?

Yes, the **institution** or **main affiliated hospital trust** offers multiple in-person or online courses relating to planetary health and/or sustainable healthcare for post-graduate providers, including at least one with a primary focus of planetary health. (2 points)

Yes, the **institution** or **main affiliated hospital trust** offers one course relating to planetary health and/or sustainable healthcare for post-graduate providers. (1 point)

There are **no** such accessible courses for post-graduate providers. (0 points)

Score Assigned:

2

As stated in question 3.2 Istanbul University Continuing Education Centre offers many courses and certificate programmes that aim to raise public awareness on sustainability, ecology and planetary health.

The Climate Change Master's Program with Thesis was established at Istanbul University's Institute of Social Sciences in 2014 to provide students with in-depth competence in climate science, policy, and sustainability, enabling them to become active individuals in environmental and social transformation processes.

[https://ebs.istanbul.edu.tr/home/program?id=1519&birim=iklim_degisikligi_tezli_yuksek_lisans_programi_\(orgun_ogretim\)](https://ebs.istanbul.edu.tr/home/program?id=1519&birim=iklim_degisikligi_tezli_yuksek_lisans_programi_(orgun_ogretim))

3.5. Does your institution or its affiliated teaching hospitals have accessible educational materials for patients about environmental health exposures?

Yes, the **institution** or **all affiliated hospitals** have accessible educational materials for patients. (2 points)

Some affiliated hospitals have accessible educational materials for patients. (1 point)

No affiliated medical centres have accessible educational materials for patients. (0 points)

Score Assigned:

2

The Environmental Management Unit of Istanbul University Faculty of Medicine periodically organises in-service training programmes to raise environmental awareness and to ensure that waste management plans are implemented and acted upon correctly.

<https://hastane-istanbultip.istanbul.edu.tr/tr/content/cevre-yonetim-birimi/hizmet-icin-egitimler>

It has carried out social responsibility projects to raise awareness of patients and their relatives

<https://hastane-istanbultip.istanbul.edu.tr/tr/content/cevre-yonetim-birimi/sosyal-sorumluluk-projel-erimiz>

3.6. Does your institution or its affiliated teaching hospitals have accessible educational materials for patients about the health impacts of climate change?

Yes, the **institution** or **all affiliated hospitals** have accessible educational materials for patients. (2 points)

Some affiliated hospitals have accessible educational materials for patients. (1 point)

No affiliated hospitals have accessible educational materials for patients. (0 points)

Score Assigned:

0

There are no accessible educational materials regarding the health impacts of climate change for patients at Istanbul University's Istanbul Faculty of Medicine Hospital.

Section Total (9 out of 14)

64%

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Support for Student-Led Planetary Health Initiatives

Section Overview: *This section evaluates institutional support for student-led planetary health initiatives, such as funding, fellowships, programming, and student groups. Planetary health is a young field and, as young people facing a future deeply shaped by climate change, students are often some of the first at an institution to engage with it. Institutions should provide support for students to engage in sustainability quality improvement (QI) initiatives, discover mentors in their area of interest, and receive funding for planetary health projects.*

| | |
|---|---|
| 4.1. Does your <u>institution</u> offer support for students interested in enacting a sustainability initiative/QI project? | |
| Yes, the institution <i>either</i> offers grants for students to enact sustainability initiatives/QI projects <i>or</i> sustainability QI projects are part of the core curriculum. (2 points) | |
| The institution encourages sustainability QI projects (to fulfil clerkship or longitudinal requirements) and offers resources to help students succeed in these projects, but there is no student funding available and there is no requirement to participate. (1 point) | |
| No, the institution does not offer opportunities or support for sustainability initiatives or QI projects. (0 points) | |
| Score Assigned: | 0 |
| <p><i>Student clubs at the institution are required to prepare and submit a detailed activity plan at the beginning of each academic year. This plan outlines the events and initiatives to be organized throughout the term and includes a draft budget covering the anticipated expenses. The document is first reviewed by the club advisor to ensure that the proposed activities are feasible and aligned with institutional objectives, including initiatives related to sustainability and quality improvement (QI). After the advisor's evaluation, the plan is submitted to the Unit Club Officer and subsequently approved by the Director of the Student Cultural Center (Öğrenci Kültür Merkezi – ÖKM). Once the necessary approvals are obtained, student clubs are authorized to implement their planned activities. Any activities outside the approved plan require additional authorization. This structured procedure ensures that student-led initiatives are institutionally supported, properly supervised, and conducted in accordance with university regulations.</i></p> | |

| | |
|--|--|
| 4.2. Does your <u>institution</u> offer opportunities for students to do research related to planetary health and/or sustainable healthcare/vetcare? | |
| The institution has a specific research program or fellowship for students interested in doing planetary health/sustainable healthcare/vetcare research. (2 points) | |
| There are research opportunities for students to perform research related to planetary health/sustainable healthcare, but these require student initiative to seek them out and carry them out in their spare time. (1 point) | |

There are **no opportunities** for students to engage in planetary health/sustainable healthcare research. (0 points)

Score Assigned:

1

Students are encouraged to conduct research in their respective fields by professors who possess expertise in those areas. But consistent follow-up by the student is essential.

4.3. Does the institution have a webpage where students can find specific information related to planetary health and/or sustainable healthcare/vetcare activities and mentors within the institution? For example, projects achieved, current initiatives underway at the medical school and/or contact of information of potential mentors.

The institution has a webpage with specific information related to planetary health or sustainable healthcare/vetcare that includes up-to-date information on relevant initiatives and contact information of potential mentors. (2 points)

There is an institution webpage that features some information on projects and mentors within planetary health and sustainable healthcare within the institution, but it lacks key information. (1 point)

There is **no institution** specific webpage for locating planetary health and/or sustainable healthcare projects or mentors. (0 points)

Score Assigned:

1

Our school has a website that provides access to information about courses and content related to the field, but it is not comprehensive and has shortcomings.

<https://avesis.istanbul.edu.tr/>

4.4. Does your institution have registered student groups dedicated towards fostering a culture of planetary health engagement, scholarship, and advocacy on campus, supported by faculty advisors?

Yes, there is a student organisation **with faculty support** at my institution dedicated to planetary health or sustainability in healthcare. (2 points)

Yes, there is a student organisation at my institution dedicated to planetary health or sustainability in healthcare but it **lacks faculty support**. (1 point)

No, there is **not** a student organisation at my institution dedicated to planetary health or sustainability in healthcare. (0 points)

Score Assigned:

2

In Istanbul University's Faculty of Pharmacy, there is a student club called the "Farmaekoloji" student club, which is a significant organization in this regard. This club aims to cultivate conscious pharmacists who can act constructively in relation to the natural order. There are many

other clubs with this perspective in Istanbul University. These all clubs are supported by an academic advisor.

Faculty of Pharmacy: Farmaekoloji <https://www.instagram.com/farmaekoloji/>

Faculty of economy-dentistry-literature: Ecology Club

Istanbul University Genç Tema

Istanbul University Genç Yeşilay

4.5. Is there a student liaison representing sustainability interests who serves on a department or institutional decision-making council to advocate for curriculum reform and/or sustainability best practices?

Yes, there is a student representative who serves on a department or institutional decision-making council/committee. (1 point)

No, there is no such student representative. (0 points)

Score Assigned:

1

Eczakder is an association that manages studies on pharmacy education programs, works to improve quality and support them, aims for development, and strives to expand these efforts to national and international levels. Professor Dr. Sönmez Uydes Doğan, one of our faculty members, is authorized to represent them. Additionally, there is a committee within our faculty that works on curriculum development; you can contact them through this committee.

<https://eczakder.org.tr/kadro?id=280>

<https://eczacilik.istanbul.edu.tr/tr/content/fakultemiz/komisyonlar-ve-kurullar>

In addition, Sümeyye Eylül Yılmaz, a final-year student at Istanbul University Faculty of Pharmacy, serves as our club's student advisor and also plays a role as “global pharmacy leader” in the Planetary Health Report Card program, representing our faculty.

4.6. In the past year, has the institution had one or more co-curricular planetary health programs or initiatives in the following categories? (1 point each)

Score

Projects where students are able to gain experience in organic agriculture and sustainable food systems, such as gardens, farms, community supported agriculture (CSA), fishery programs, or urban agriculture projects.

1

Panels, speaker series, or similar events related to planetary health that have students as an intended audience.

1

Events in which students learn directly from members of a local environmental justice community about the climate and environmental challenges they face, and how health professionals can partner with their community to address these exposures and impacts.

1

Cultural arts events, installations or performances related to planetary health that have students as an intended audience.

1

| | |
|--|------------|
| Local volunteer opportunities related to building community resilience to anthropogenic environmental impacts. | 1 |
| Wilderness or outdoors programs (e.g., that organise hiking, backpacking, kayaking, or other outings for student) | 1 |
| <p>1) <i>Farmaekoloji Club organized a nature exploration trip to Atatürk Arboretum. Workshops held as part of the Ecofest event, organized by Farmaekoloji Club, included: medicinal and aromatic plant workshop, pine needle workshop and terrarium making workshop.</i> https://www.instagram.com/p/DPI3zp_DaxG/?igsh=MT14aGgzM2V3dm90</p> <p>2) <i>Ecofest X Bilgi Çayı: The Farmaekoloji Club of Istanbul University Faculty of Pharmacy and the Bilgi Çayı team organized the Ecofest ecology festival on May 10th. This event, which had an environmentally friendly preparation phase, brought together students, academics, and industry representatives from pharmacy, medicine, health, and science. In addition to its scientific content, the event focused on sustainability and carbon footprint issues. Participants gained knowledge and experience in panels and workshops, and explored environmentally friendly approaches in the field.</i> https://www.instagram.com/p/DJcMimitZ1e/?img_index=2&igsh=cGllbjlhcWNmbzly <i>The FarmaEkoloji club has undertaken the responsibility of organizing a biodiversity day panel and nature painting workshop at their faculty on May 22nd.</i> https://eczacilik.istanbul.edu.tr/tr/etkinlik/22-mayis-biyocesitlilik-gunu-7500520031002D0077004A006A00690056006F00500039007900700046006200610041004F003200370077003200</p> <p>3) <i>During panels held at Ecofest, students gained knowledge from officials on topics such as "medicinal plants and public health," "waste management," and "climate policies and strategies".</i></p> <p>4) <i>Examples include birdwatching and its relevance to ecology activity and mushroom hunt in Belgrad Forest walk organized by the FarmaEkoloji club.</i> https://www.instagram.com/reel/DROqB6_DWCd/?l=1 https://www.instagram.com/p/DO8VfpAjc1j/?igsh=MzhldHh4M3pmYWds <i>Workshops held at Ecofest can also be given as examples: beeswax cloth making, pine needle crafts.</i></p> <p>5) <i>The electronic waste inspection, dismantling, and evaluation workshop held at Ecofest is an example. A tree planting event by the Genç TEMA Club is an example.</i></p> <p>6) <i>Farmaekoloji club's traditional ecological walking event, ecowalk; Golden Horn canoeing event organized by club members.</i></p> | |
| Section Total (11 out of 15) | 73% |

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The Ecofest event, organized by the Farmaekoloji Club of Istanbul University Faculty of Pharmacy on May 10th last year, successfully brought together academics, students, and industry stakeholders. The support of the "UNIDES" platform also contributed to this success. Through discussions on social issues, explanations of application methods by academics, and workshops conducted by representatives from various fields, a sustainable and environmentally conscious perspective was developed. Throughout this process, the

carbon footprint was measured, and the event was carried out with the aim of maximizing benefits while minimizing waste and harm.

https://www.instagram.com/p/DMNJjckI1wJ/?igsh=MW5sY2M3ZW93YnhpZQ%3D%3D&img_index=2

Campus Sustainability

Section Overview: *This section evaluates the support and engagement in sustainability initiatives by the institution. The healthcare industry is a major contributor to greenhouse gas emissions as well as pollution that harms local, regional, and global ecosystems. While healthcare is, by nature, a resource-intensive endeavour, the healthcare sector is well poised to lead the world to a more sustainable future. This will involve scrutinising every aspect of how our systems operate, from where we source our energy, to how we build our infrastructure, to what companies we invest in. Our institutions, clinics, and hospitals must set the standard for sustainable practices, and show other sectors what is possible when it comes to minimising environmental impact.*

| 5.1. Does your <u>institution</u> have an Office of Sustainability? | |
|---|---|
| Yes, there is an Office of Sustainability with multiple full-time staff dedicated to campus sustainability. If the Office of Sustainability serves the entire campus, there is at least one designated staff member for sustainability at the hospital. (3 points) | |
| There is an Office of Sustainability with one or more full-time staff dedicated to campus sustainability, but no specific staff member in charge of hospital sustainability. (2 points) | |
| There are no salaried sustainability staff , but there is a sustainability task force or committee. (1 point) | |
| There are no staff members or task force responsible for overseeing campus sustainability. (0 points) | |
| Score Assigned: | 1 |
| <p><i>There is a sustainability committee. The members of this committee and the committee guidelines are available at the links below.</i></p> <p>https://www.istanbul.edu.tr/tr/content/surdurulebilirlik-komisyonu/komisyon-ve-yonerge https://cdn.istanbul.edu.tr/FileHandler2.ashx?f=istanbul-universitesi-surdurulebilirlik-komisyonu-yonergesi.pdf</p> | |

| 5.2. How ambitious is your <u>institution's</u> plan to reduce its own carbon footprint? | |
|---|---|
| The institution has a written and approved plan to achieve carbon neutrality by 2030 (5 points) | |
| The institution has a written and approved plan to achieve carbon neutrality by 2040 (3 points) | |
| The institution has a stated goal of carbon neutrality by 2040 but has not created a plan to reach that goal or the plan is inadequate (1 point) | |
| The institution does not meet any of the requirements listed above (0 points) | |
| Score Assigned: | 0 |

Our university's strategic plans are developed for a four-year period, therefore this plan covers the years 2024-2028.

[https://cdn.istanbul.edu.tr/FileHandler2.ashx?f=iu-2024-2028-stratejik-plani--son-hali--\(25.10.2023\).pdf](https://cdn.istanbul.edu.tr/FileHandler2.ashx?f=iu-2024-2028-stratejik-plani--son-hali--(25.10.2023).pdf)

According to the data in Istanbul University's 2024-2028 Strategic Plan, the institution has not yet made a concrete and time-bound commitment regarding sustainability and carbon footprint management. The plan addresses environmental and climate change issues primarily as an area of awareness under the heading "Social Contribution," but it does not include a written and approved "carbon neutrality" action plan for 2030 or 2040.

In summary, while sustainability is mentioned in the document as an intention at the vision level, there is no technically or administratively approved carbon footprint reduction roadmap.

5.3. Do buildings/infrastructure used by the institution for teaching (not including the hospital) utilize renewable energy?

Yes, institution buildings are **100%** powered by renewable energy. (3 points)

Institution buildings source **>80%** of energy needs from off-site and/or on-site renewable energy. (2 points)

Institution buildings source **>20%** of energy needs from off-site and/or on-site renewable energy. (1 point)

Institution buildings source **<20%** of energy needs from off-site and/or on-site renewable energy. (0 points)

Score Assigned:

0

According to **Article 7, paragraph (d)** of the Istanbul University Sustainability Commission Directive, the institution officially mandates the use of 'renewable and clean energy' across its campuses as a core duty to minimize the ecological footprint. While the directive establishes the legal framework for utilizing these specific energy types, detailed performance reports specifying the exact breakdown of sources (such as the percentage of solar or wind) are not yet publicly disclosed. Consequently, as numerical data proving at least 20% coverage is currently unavailable, the score is assigned as 0.

<https://cdn.istanbul.edu.tr/FileHandler2.ashx?f=istanbul-universitesi-surdurulebilirlik-komisyonu-yonergesi.pdf>

5.4. Are sustainable building practices utilised for new and old buildings on the institution's campus, with design and construction of new buildings and remodelling of old buildings conforming to a published sustainability rating system or building code/guideline?

Yes, sustainable building practices are utilised for new buildings on the institution's campus and the **majority** of old buildings **have been retrofitted** to be more sustainable. (3 points)

Sustainable building practices are utilised for new buildings on the institution's campus, but most old buildings have **not been retrofitted**. (2 points)

Sustainable building practices are **inadequately or incompletely** implemented for new buildings. (1 point)

Sustainability is **not considered** in the construction of new buildings. (0 points)

Score Assigned:

3

In the reconstructed Faculty of Pharmacy buildings, ventilation systems are being constructed with zero carbon action in mind. At the same time, ventilation systems in laboratories are also rebuilt accordingly.

https://cdn.istanbul.edu.tr/FileHandler2.ashx?f=istanbul-universitesi-2024_2028-stratejik-plani_-a-maclar-ve-hedefler.pdf

Istanbul University Faculty of Pharmacy has been awarded the 'Spatial Accessibility Award' in 2021 and 2024.

<https://eczacilik.istanbul.edu.tr/tr/haber/fakultemiz-yok-engelsiz-universite-2024-odulleri-kapsamin-da-egitimde-erisim-konu-7A005F00650065006C005A0041007300630063007A0039007900700046006200610041004F003200370077003200>

<https://www.istanbul.edu.tr/tr/haber/2021-engelsiz-universite-odulleri-bayrak-teslim-toreni-gercekl-esti-730072004E004600530031004F006100560053004C0039007900700046006200610041004F003200370077003200>

Other university buildings are being renovated in parallel.

5.5. Has the institution implemented strategies to encourage and provide environmentally-friendly transportation options for students and reduce the environmental impact of commuting?

Yes, the institution has implemented strategies to encourage and provide **environmentally-friendly transportation options** such as safe active transport, public transport, or carpooling and these options are well-utilised by students. Alternatively, the campus location is not amenable to unsustainable forms of transportation by default. (2 points)

The institution has implemented **some** strategies to provide environmentally-friendly transportation options, but the options are **unsatisfactorily** accessible or advertised. (1 point)

The institution has **not** implemented strategies to encourage and provide environmentally-friendly transportation options. (0 points)

Score Assigned:

0

Beyazit Square, where the campus is located, is an area that can use public transportation routes such as bus-metro-tram as transportation, has the opportunity to use electric scooters, and its immediate surroundings are closed to traffic. The most preferred scooter and tram options are systems that reduce carbon emissions and use electric power. It represents environmentally friendly transportation within the framework of the theme of "Strategic management, Planet, People, Prosperity" with the sustainability approaches of Istanbul Metropolitan Municipality in transportation.

5.6. Does your institution have an organics recycling program (compost) and a conventional

| | |
|---|---|
| recycling program (aluminium/paper/plastic/glass)? | |
| Yes, the institution has both compost and recycling programs accessible to students and faculty. (2 points) | |
| The institution has either recycling or compost programs accessible to students and faculty, but not both. (1 point) | |
| There is no compost or recycling program at the institution. (0 points) | |
| Score Assigned: | 1 |
| <p><i>The University is included in the zero waste program. There are separate recycling bins for paper, plastic and glass inside the campus and faculties.</i></p> <p>https://eczacilik.istanbul.edu.tr/tr/content/fakultemiz/komisyonlar-ve-kurullar (refer to the environmental management unit)</p> | |

| | |
|--|---|
| 5.7. Does the <u>institution</u> apply sustainability criteria when making decisions about the campus food and beverage selections (e.g. local sourcing, reduced meat, decreased plastic packaging)? | |
| Yes, the institution has adequate sustainability requirements for food and beverages, including meat-free days or no red-meat, and is engaged in efforts to increase food and beverage sustainability. (3 points) | |
| There are sustainability guidelines for food and beverages, but they are insufficient or optional . The institution is engaged in efforts to increase food and beverage sustainability. (2 points) | |
| There are sustainability guidelines for food and beverages, but they are insufficient or optional . The institution is not engaged in efforts to increase food and beverage sustainability. (1 point) | |
| There are no sustainability guidelines for food and beverages. (0 points) | |
| Score Assigned: | 0 |
| <p><i>The university dining hall has a “Vegan Menu” as an additional menu. No practices on food recycling, local sourcing, or reduced plastic packaging were found. There are no guidelines on this issue.</i> https://sks.istanbul.edu.tr/yemek-listesi</p> | |

| | |
|---|--|
| 5.8. Does the <u>institution</u> apply sustainability criteria when making decisions about supply procurement? | |
| Yes, the institution has adequate sustainability requirements for supply procurement and is engaged in efforts to increase sustainability of procurement. (3 points) | |
| There are sustainability guidelines for supply procurement, but they are insufficient or optional . The institution is engaged in efforts to increase sustainability of procurement. (2 points) | |

There are sustainability guidelines for supply procurement, but they are **insufficient or optional**. The institution is **not engaged** in efforts to increase sustainability of procurement. (1 point)

There are **no** sustainability guidelines for supply procurement. (0 points)

Score Assigned:

3

Istanbul University has established a formal framework for sustainable procurement through its "Sustainability Commission Directive" and the subsequently enacted "Sustainable Purchasing Policy." This policy mandates specific sustainability requirements for supply procurement, including evaluating suppliers based on transparency, business ethics, and Occupational Health and Safety (OHS) standards. Furthermore, the institution is actively engaged in efforts to minimize its environmental footprint by prioritizing resource efficiency and the "paperless office" concept—a strategy that earned the university 1st place in Türkiye's "Greenest Office" research and prevented the felling of over 4,490 trees. The transition to a discipline-based education model at the Faculty of Pharmacy in 2024 further supports this by significantly reducing non-recyclable paper waste. These integrated policies and institutional directives demonstrate that sustainability is a core, mandatory component of the university's procurement and operational decision-making processes.

<https://cdn.istanbul.edu.tr/FileHandler2.ashx?f=istanbul-universitesi-surdurulebilirlik-komisyonu-yonergesi.pdf&hl=tr-TR>

https://cdn.istanbul.edu.tr/FileHandler2.ashx?f=istanbul-universitesi-surdurulebilir-satin-alma-politikasi_638766884190359012.pdf&hl=tr-TR

<https://www.istanbul.edu.tr/tr/haber/istanbul-universitesi-en-yesil-ofis-arastirmasinda-birinci-oldu-7100360073007A002D0042003100490069003500760039007900700046006200610041004F003200370077003200>

5.9. Are there sustainability requirements or guidelines for events hosted at the institution?

Every event hosted at the institution **must** abide by sustainability criteria. (2 points)

The institution **strongly recommends or incentivizes** sustainability measures, but they are **not required**. (1 point)

There are **no** sustainability guidelines for institution events. (0 points)

Score Assigned:

1

Score explanation: As a department, many seminars, conferences, congresses, and workshops are organized at the Faculty of Pharmacy. No mandatory sustainability restrictions were found for these activities. At this point, we act with the principle of sustainability and zero waste awareness in our congresses, seminars, stand opening and other activities we organize as the "Farmaekoloji Club" of the faculty. Notably, transparency was ensured by calculating the carbon footprint during the Ecofest '25 event. ÖKM (Student Cultural Centre) also frequently emphasises that all activities fall within the scope of zero waste.

5.10. Does your institution have programs and initiatives to assist with making lab spaces more environmentally sustainable?

Yes, the institution has **programs** and **initiatives** to assist with making lab spaces more environmentally sustainable. (2 points)

There are **guidelines** on how to make lab spaces more environmentally sustainable, but not programs or initiatives. (1 point)

There are **no** efforts at the institution to make lab spaces more sustainable. (0 points)

Score Assigned:

2

There is a 'Waste Management Unit' for laboratories. In cooperation with Istanbul Environmental Management Industry and Trade Inc. (İSTAÇ), municipal hazardous wastes are disposed of and we also have our own medical waste recycling facility. In student laboratories, security, water systems, and water baths have been established for sustainable purposes. In the academic laboratories, there are studies for the distribution of other departments to the necessary projects in order to quickly evaluate the products that are approaching the end use. There are guidelines within the scope of the 'Environmental Regulation' and these guidelines are being implemented and developed.

<https://cdn.istanbul.edu.tr/statics/eczacilik.istanbul.edu.tr/wp-content/uploads/2014/03/ATIK-TOPLAMA-FORMU.pdf>

<https://cdn.istanbul.edu.tr/statics/eczacilik.istanbul.edu.tr/wp-content/uploads/2014/03/F-M%C4%B0KROB%C4%B0YOLOJ%C4%B0-%C3%96%C4%9ERENC%C4%B0-LABORATUVARI-G%C3%9CVENL%C4%B0K-PROSED%C3%9CR%C3%9C.pdf>

<https://cdn.istanbul.edu.tr/statics/eczacilik.istanbul.edu.tr/wp-content/uploads/2014/03/%C3%96%C4%9ERENC%C4%B0-LABORATUVARI-G%C3%9CVENL%C4%B0K-PROSED%C3%9CR%C3%9C.pdf>

<https://cdn.istanbul.edu.tr/statics/eczacilik.istanbul.edu.tr/wp-content/uploads/2014/03/K%C4%B0MYASAL-G%C3%9CVENL%C4%B0K-FORMU.pdf>

5.11. Does your institution's endowment portfolio investments include fossil-fuel companies?

The institution is **entirely divested** from fossil fuels **and** has made a **commitment to reinvest divested funds** into renewable energy companies or renewable energy campus initiatives. (4 points)

The institution is **entirely divested** from fossil fuels. (3 points)

The institution has **partially divested** from fossil fuel companies **or** has made a **commitment to fully divest**, but **currently** still has fossil fuel investments. (2 points)

The institution has **not divested** from fossil-fuel companies, but faculty and/or students are **conducting organised advocacy** for divestment. (1 point)

Yes, the institution has investments with fossil-fuel companies and there have been **no efforts** to change that. (0 points)

| | |
|---|---|
| Score Assigned: | 3 |
| <p><i>As a public institution, Istanbul University is governed by the Turkish Public Financial Management and Control Law (No. 5018). This legislation strictly mandates that university budgets are allocated directly from the National Treasury for specific public services (education, research, healthcare).</i></p> <p><i>By law, the institution does not maintain a private endowment portfolio, nor does it have the legal authority to invest public funds into corporate stocks or commercial entities, including fossil fuel companies. Therefore, the university is structurally and entirely divested from fossil fuel investments. The absence of fossil fuel holdings is not merely a lack of initiative, but a legally binding institutional status that ensures no public resources are used to support the fossil fuel industry.</i></p> <p>https://www.mevzuat.gov.tr/MevzuatMetin/1.5.5018.pdf</p> | |

| | |
|-------------------------------------|------------|
| Section Total (14 out of 32) | 44% |
|-------------------------------------|------------|

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Grading

Section Overview

This section focuses on the grading of the report card. The institution received a grade for each of the individual sections as well as an overall institutional grade. Section point totals were tallied, divided by the total points available for the section, and converted to a percentage. The overall institutional grade is a weighted average of the section grades, with curriculum receiving a higher weight owing to its larger number of metrics. Letter grades for each section and the institution overall were then assigned according to the table below.

| Letter Grade* | Percentage |
|---------------|------------|
| A | 80% - 100% |
| B | 60% - 79% |
| C | 40% - 59% |
| D | 20% - 39% |
| F | 0% - 19% |

**Within each grade bracket, a score in the top 5% (_5 to _9%), receives a “+”, and a score in the bottom 5% (_0- _4%) receives a “--”. For example, a percentage score of 78% would be a B+.*

Planetary Health Grades for the Istanbul University School of Pharmacy The following table presents the individual section grades and overall institutional grade for the Istanbul University School of Pharmacy on this Planetary Health Report Card.

| Section | Raw Score % | Letter Grade |
|---|---|--------------|
| Planetary Health Curriculum (30%) | $(46/69) \times 100 = 67\%$ | B |
| Interdisciplinary Research (17.5%) | $(7/17) \times 100 = 41\%$ | C- |
| Community Outreach and Advocacy (17.5%) | $(9/14) \times 100 = 64\%$ | B- |
| Support for Student-led Planetary Health Initiatives (17.5%) | $(11/15) \times 100 = 73\%$ | B |
| Campus Sustainability (17.5%) | $(14/32) \times 100 = 44\%$ | C- |
| Institutional Grade | $(A \times 0.3 + B \times 0.175 + C \times 0.175 + D \times 0.175 + E \times 0.175) = 59\%$ | C+ |

Report Card Trends

Section Overview

This graph demonstrates trends in overall and section grades for the years in which ISTANBUL UNIVERSITY has participated in the Planetary Health Report Card initiative.

