



Planetary Health Report Card (Pharmacy) 2026:

Hacettepe University Faculty of Pharmacy



2025-2026 Contributing Team:

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Summary of Findings

Overall Grade	B-
Curriculum	B-
<ul style="list-style-type: none"> Planetary health is increasingly recognized as a vital component of modern healthcare and holds a significant place within the Hacettepe University Faculty of Pharmacy curriculum. The current educational model addresses these topics through a combination of core and elective coursework. Core courses such as "Pharmaceutical Toxicology," "Public Health," and "Pharmaceutical Care" provide foundational knowledge on critical issues like air pollution, water contamination, waste management, and the clinical effects of climate change on respiratory and cardiovascular health. While these core modules introduce the concepts, elective courses like "Environmental Toxicology" and specific faculty seminars allow for a deeper exploration of ecological sustainability. However, the curriculum currently places less emphasis on the carbon footprint of the broader pharmaceutical industry and the environmental impact of manufacturing processes, indicating an area for potential growth. Recommendations: To effectively integrate planetary health into the curriculum, it is essential to formalize content that is often discussed in-depth verbally by instructors but currently lacks sufficient coverage in written materials and examinations. To heighten student awareness, critical topics such as the pharmaceutical industry's carbon footprint and the environmental impact of therapies must be explicitly incorporated into lecture notes, syllabi, and exam content. Furthermore, moving sustainability concepts beyond isolated information by directly linking them to the healthcare industry and clinical practice through a holistic approach will significantly reinforce both the importance and retention of this subject. 	
Interdisciplinary Research	B+
<ul style="list-style-type: none"> Hacettepe University conducts various academic and institutional activities in the fields of planetary health and healthcare sustainability. At the institutional level, Hacettepe Üniversitesi Sürdürülebilir Yerleşkeler Koordinatörlüğü plays an active role. The Coordination Office works on environmental protection, climate change, and sustainability. The university has an official web platform centralizing health and environment initiatives. A dedicated section for PHRC has also been established, however, there is no dedicated institute or center specifically for planetary health. An interdisciplinary institutional structure has not yet been formed. There is no formal mechanism enabling community input into the research agenda. The university is not a member of national or international planetary health networks. Recommendations: An interfaculty planetary health working group could be established. Collaboration mechanisms with community stakeholders could be developed. With strengthened coordination, the university has the potential to become more visible and influential in this field. 	
Community Outreach and Advocacy	B+
<ul style="list-style-type: none"> Community engagement is of great importance in raising awareness about planetary health. In this context, it is particularly essential for faculties in the health sciences to organize public education and awareness activities and to expand their outreach through strategic collaborations. In line with this approach, Hacettepe University Faculty of Pharmacy maintains long-term collaborations with organizations such as the European Pharmaceutical Students' Association (EPSA), as well as periodic partnerships with initiatives such as Esmiyor. Our faculty organizes educational programs for healthcare professionals; however, there are currently no dedicated courses specifically open to the general public. 	

Academic research on topics such as planetary health and pharmaceutical footprint has been steadily increasing each year. A postgraduate certificate program on sustainable development is also available. Additionally, Hacettepe University Hospitals provide accessible educational materials addressing climate change and its impacts on health.

- **Recommendations:** Strengthening partnerships and expanding sustainability education can help advance planetary health efforts within the institution. In addition, forming new collaborations with environmental organizations can further support advocacy initiatives and increase students' awareness of the importance of planetary health.

Support for Student-Led Initiatives

C

- The institution maintains an informative webpage and encourages student-led sustainability projects through academic mentorship. However, these initiatives rely on student proactivity, lack dedicated funding, and have limited formal faculty support for student organizations. Currently, there is no student representative in decision-making councils for sustainability.
- **Recommendations:** The Faculty should establish formal faculty advisory roles for student groups and introduce dedicated funding for sustainability projects. Additionally, appointing a student liaison to decision-making councils is recommended to better advocate for curriculum reform and sustainable practices.

Campus Sustainability

C

- Hacettepe University conducts its sustainability initiatives under an institutional structure through the Sustainable Campuses Coordination Office. Active practices are implemented in areas such as waste management, carbon footprint monitoring, energy efficiency, and sustainable campus planning. Through its participation in the UI GreenMetric system, sustainability performance is monitored at the international level; zero waste practices, energy-saving measures, and green chemistry applications are implemented across the campus. At the same time, these efforts are largely aligned with national regulations. Overall, it can be stated that the institution demonstrates a strong level of institutional awareness in the field of sustainability.
- **Recommendations:** Hacettepe University should develop a net zero emissions roadmap aligned with international standards and supported by measurable interim targets in order to advance further in the field of sustainability. To increase the share of renewable energy (currently below 20%), on-campus solar energy investments should be systematically expanded. Sustainability criteria in procurement processes should go beyond regulatory compliance and incorporate supply chain-related carbon footprint assessments as well as social compliance evaluations. A binding sustainable food policy should be established for food services, and an official sustainability guideline should be prepared for university events. These measures would contribute to positioning Hacettepe University as a more strategic and exemplary institution in the field of sustainability.

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:	3
<i>Score explanation: Score explanation: In the "Pharmaceutical Toxicology II" course at Hacettepe University Faculty of Pharmacy, the topics of "Air Pollution" and "Sick Building Syndrome" were covered, while the "Pharmaceutical Care I" and "Pharmaceutical Care II" courses examined the effects of weather changes on asthma and hypertension. The "Quality Assurance and Regulations" course featured a presentation on the One Health approach and climate change by a WHO pharmacist. Additionally, these topics were also addressed in the "Public Health" course. You can access the lecture notes through these link: Pharmaceutical Toxicology II Notes, Pharmaceutical Care II Notes, Pharmaceutical Care I Notes, Public Health Notes, Public Health Notes 2</i>	

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
<i>Score explanation: The curriculum at Hacettepe University Faculty of Pharmacy actively integrates environmental health topics. In the "Pharmaceutical Toxicology II" course, the profound</i>	

impacts of water and soil pollution were analyzed alongside sustainable production and waste management strategies. Complementing this, the "Pharmaceutical Care II" course examined the environmental footprint of drug formulations, specifically highlighting the transition from chlorofluorocarbon (CFC) to hydrofluoroalkane (HFA) propellants in Ventolin inhalers to reduce ecological harm. You can access the lecture notes through these links: [Pharmaceutical Toxicology II Notes](#), [Pharmaceutical Care II Notes](#)

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

Score explanation: The curriculum of Hacettepe University Faculty of Pharmacy extensively addresses the health impacts of environmental toxins related to the pharmaceutical industry and manufacturing through a multi-layered educational approach. While the "Environmental Toxicology" elective explores the direct effects of pesticides, heavy metals, and nitrates, the core "Pharmaceutical Toxicology II" course provides a critical, in-depth analysis of these topics from a mechanistic and clinical perspective. Specifically, this core course covers the toxicity of metals used in medical and industrial settings such as Mercury found in vaccines (Thimerosal) and dental amalgams, or Arsenic along with specific treatment protocols using chelating agents. It also examines the mechanism of action of agrochemicals that pollute soil and water systems, focusing on the clinical management of poisoning, and addresses modern topics like the toxicity of engineered nanoparticles used in drug delivery systems (e.g., liposomal drugs causing CARPA reactions). Additionally, the general effects of chemicals are briefly mentioned in the "Public Health" course. You can access the lecture notes through these links: [Environmental Toxicology Notes](#), [Environmental Toxicology Notes 2](#), [Environmental Toxicology Notes 3](#), [Public Health Notes](#), [Public Health Notes 2](#), [Pharmaceutical Toxicology II Notes](#), [Pharmaceutical Toxicology II Notes](#), [Pharmaceutical Toxicology II Notes](#)

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:

0

Score explanation: This topic was **not** covered.

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

Score explanation: The topic is addressed through specific seminars and core public health concepts. As part of the Pharmacology Department Seminars, the session titled "Antimicrobial Resistance in the World and Turkey" analyzed both the effects of climate change and other contributing factors on resistance patterns. Furthermore, the "One Health" approach, which is critical for understanding the changing landscape of infectious diseases, has been integrated into the Public Health curriculum. You can access the lecture notes through these links: [Public Health Notes](#)

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:

3

Score explanation: In the "Pharmaceutical Toxicology II" course at Hacettepe University Faculty of Pharmacy, the topic "Respiratory Toxicity" was covered. First, the pulmonary system was explained as a primary target organ in toxicity. The acute responses and chronic diseases caused by toxic substances in the pulmonary system were discussed. The toxic mechanisms of benzene, toluene, methanol, carbon monoxide, and cyanide were explained, along with information on their antidotes. You can access the lecture notes through these links: [Pharmaceutical Toxicology II Notes](#)

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:	3
<p><i>Score explanation: The curriculum provides a comprehensive perspective on the cardiovascular health effects of climate change through multiple courses. In the core course "Pharmaceutical Care I," the lecture on "Hypertension" specifically examines the correlation between weather changes and blood pressure regulation. This knowledge is further expanded upon in the "Public Health" course, which discusses the impact of air pollution on cardiovascular diseases. Additionally, the "Environmental Toxicology" elective explicitly covers global environmental issues and their systemic effects on the cardiovascular system, demonstrating a multi-layered educational approach. You can access the lecture notes through these links: Pharmaceutical Care I Notes, Environmental Toxicology Notes, Public Health Notes</i></p>	

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:	2
<p><i>Score explanation: The curriculum addresses the impact of climate change on allergic diseases by integrating environmental health into foundational and clinical courses. In the "Anatomy and Physiology 5" course, the relationship between outdoor air pollution and respiratory hypersensitivity is introduced, providing a physiological basis for understanding how environmental stressors trigger allergic responses. You can access the lecture notes through this link: Anatomy and Physiology 5</i></p>	

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:	0

Score explanation: This topic was not covered.

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

Score explanation: In the 'Pharmaceutical Toxicology II' course at Hacettepe University Faculty of Pharmacy, climate change is associated with an increase in the frequency of natural disasters under the topic 'Disaster Toxicology and Physical, Chemical, and Biological Factors Causing Disasters.' It has been emphasized that disasters often exacerbate social inequalities and disproportionately affect vulnerable communities. It was noted that, particularly in low-income regions, climate change can lead to significant challenges in accessing healthcare, clean water, or food. These deficiencies negatively impact global health on a broad spectrum, primarily by contributing to the emergence of infectious diseases.

It is also covered in the "Introduction to Public Health" course. The lecture explicitly identifies social, cultural, and economic factors as primary determinants of health. It highlights the disparity between individuals living in developed versus developing countries and those with high versus low wealth and education levels. Furthermore, by emphasizing social justice and equity as fundamental requirements for health, the curriculum provides a framework for understanding how global environmental changes, such as climate change, disproportionately affect vulnerable populations based on their socioeconomic status

You can find the mentioned course notes at these links: [Pharmaceutical Toxicology II Notes](#), [Public Health Notes](#)

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:

2

Score explanation: This topic is covered in our core course, Pharmaceutical Toxicology II. Climate change is one of the most important social determinants of health today, and pharmacists must be aware of its health impacts. Rising temperatures, extreme rainfall, drought, and natural disasters

increase the risk of diseases such as respiratory and waterborne illnesses. Reduced water resources can also decrease soil fertility and food quality, indirectly affecting pharmaceutical raw materials.

Moreover, climate change worsens social and economic inequalities and creates challenges in accessing healthcare and medicines. Therefore, pharmacists play a key role in evaluating its impact on the healthcare system and contributing to efforts to protect and improve public health. You can find the mentioned course notes at this link: [Pharmaceutical Toxicology II Notes](#)

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:

1

Score explanation: This topic is briefly addressed in our elective course, Traditional Treatment Systems Around the World. Throughout history, plants have been widely used for nutrition and therapeutic purposes. From a pharmaceutical perspective, plant-based diets offer important benefits for both health and the environment.

Reducing animal product consumption supports environmental sustainability and helps decrease ecological damage. At the same time, plant-based nutrition can lower the risk of chronic diseases such as heart disease, obesity, and type 2 diabetes. Rich in fiber, antioxidants, and vitamins, plant-based foods promote overall health and serve as a preventive, non-pharmacological approach. Therefore, pharmacists can encourage plant-based nutrition to support both individual well-being and environmental sustainability. You can find the mentioned course notes at this link: [Traditional Treatment Systems Around the World Notes](#)

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)

0

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 most important to dispose of properly (e.g. hormonal contraceptives, drugs that are excreted unchanged/active metabolites). (1 point)

1

The impact of extreme heat, on patients on medications which can interfere with thermoregulation. (1 point)

0

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)	0
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 system. (1 point)	1
<p><i>Score explanation:</i> Our faculty offers the course “Pharmacy Management” which includes a topic on “Radioactive Pharmaceutical Waste Management.” This course covers the proper handling and disposal of radioactive pharmaceutical waste. However, there is no specific course in the curriculum that comprehensively addresses waste management for all types of pharmaceutical dosage forms. You can find the mentioned course notes at this link: Pharmacy Management Notes</p> <p>In the “Pharmaceutical Care II” course it was emphasised that non-pharmaceutical approaches are central to the prevention and management of Type 2 diabetes. It highlights medical nutrition therapy, regular physical activity, weight control, and lifestyle modification as first-line strategies. Exercise improves insulin sensitivity and glucose control, while a balanced diet supports metabolic regulation. Overall, the presentation underlines that lifestyle changes are essential components of diabetes care and can reduce the need for medication when effectively maintained. You can find the mentioned course notes at this link: Pharmaceutical Care II Notes</p> <p>In the “Pharmaceutical Toxicology I” it was emphasized that some xenobiotics, can be transformed into compounds with higher environmental persistence as a result of biotransformation. However the effects of benign by design pharmaceuticals are not mentioned. You can find the mentioned course notes at this link: Pharmaceutical Toxicology I Notes</p>	

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:	2

Score explanation: In the Pharmaceutical Care II course, which is one of our basic courses, it was verbally conveyed that while CFC gas was generally used in inhalers, hydrochloroalkane gas was used instead due to its high environmental damage. The relevant lecture notes can be accessed from the link below:

https://drive.google.com/drive/folders/1iQVbX63HKwg_7mQis9uMN5LsFKOmhzIB

In the pharmaceutical technology 2 course, it was mentioned that the use of CFC gases is restricted due to their negative effects on the ozone layer and human health within the scope of aerosols. The relevant course notes can be accessed from the link below:

<https://drive.google.com/drive/folders/1tLfMGYrDS2XzYMAMY7t-bM2cUbMUnzAJ>

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:

0

Score explanation: No, there are no strategies or examples for having conversations with patients about climate change.

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:

0

*Score explanation: This topic was **not** covered.*

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

Score explanation: Our faculty is currently in the process of implementing or improving Sustainable Health Education (SHE)/planetary health education. Within the scope of the Planetary Health Report Card (PHRC) 2023–2024 that we prepared, a detailed evaluation on Planetary Health and Sustainability was conducted for the first time in our faculty under the headings of “curriculum, planetary health research, community outreach and advocacy, support for student-led initiatives, and campus sustainability.” Through this evaluation, we had the opportunity to assess our current situation and identify our deficiencies in all of these areas.

As the PHRC team, we held a meeting with our advisor to discuss what could be done to improve our planetary health report card. The improvement areas we identified were then discussed in detail during another meeting with our dean, and we determined specific steps that could be taken within our faculty. During this meeting, it was also discussed that interacting with other faculties could help us make more comprehensive progress. As the PHRC team, our faculty also expressed the aim of sharing brief information and increasing the visibility of our activities on campus. For this purpose, we created a social media account called “huf_phrc.”

Apart from these initiatives, our school also offers learning opportunities related to the subject outside the formal curriculum. For example, most guest speakers invited to our faculty mention the One Health approach in their presentations. Prof. Dr. Murat Akova’s seminar on Antimicrobial Resistance in the World and in Turkey, Melda Keçik’s presentation on Pharmacists in International Organizations, and many other speakers who visited our faculty to give presentations on Rational Drug Use, particularly with a focus on One Health, have been effective in raising awareness about this topic.

In addition, within the curriculum of Hacettepe University Faculty of Pharmacy, it can be observed that environmental issues and the One Health perspective are addressed from different angles in at least one course in each semester from the first year to the fifth year.

Examples include the “Environment and Health” topic covered in depth in the Public Health course in the first year; the “Antibiotic Resistance” topic in the Medical Microbiology and Immunology course in the second year; topics such as air pollution, water pollution, and soil pollution covered within the Toxicology II course in the fourth year; and the Sustainable Development topic included in the Industrial Pharmacy course in the fifth year.

Furthermore, our university has created a dedicated sustainability page on its official website. Many activities related to sustainability, including those conducted by our PHRC group and its initiatives, are published and shared on this page.

Environment and Health:

<https://docs.google.com/presentation/d/1umkWfwdq2BjzTlBWwESmZiEE5U8a27-N/edit?slide=id.p40#slide=id.p40>

Medical Microbiology and Immunology-“Antibiotic Resistance”:

<https://drive.google.com/drive/u/1/folders/13mXaDqoj8vZQ98ohYV3VHPn2qAXiV3Jo>

toxicology II - air pollution and environment:

https://drive.google.com/drive/u/1/folders/1-q4DCrOD_2oEoFw9t45ckT18fWLM1-Ln

toxicology II - water pollution and soil pollution:

https://drive.google.com/drive/u/1/folders/1-q4DCrOD_2oEoFw9t45ckT18fWLM1-Ln

Industrial Pharmacy - Sustainable Development:

<https://drive.google.com/drive/u/1/folders/1ZDjs0IROal6PzlQNZ7EAlxAjaTxDMBBO>

Hacettepe University Sustainable Development Web Page:

<https://surdurulebilirkalkinma.hacettepe.edu.tr/tr>

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:

4

Score explanation: Green chemistry, also called sustainable chemistry, is a field of chemistry that focuses on the design of products and processes that will minimize or eliminate the use and production of hazardous substances. Green chemistry investigates ways to reduce the consumption of non-renewable resources, develops technological approaches to prevent pollution, and focuses on the environmental impact of chemistry. In the ECF 254 Separation and Chromatography in Pharmaceutical Analysis Course, it was mentioned that although greening processes in analytical chemistry are commonly tried in GC and HPLC methods, there are methods that green all the process steps from sample preparation to chromatographic separation. Greening approaches for chromatographic separations depend on the type of chromatography. In gas chromatography, it is recommended to move away from the use of helium as a carrier gas, as it is not a renewable resource. GC separations use low thermal mass technology (LTM), which can be greened because it saves energy. In liquid chromatography, approaches such as reducing solvent consumption and replacing toxic and environmentally harmful solvents with better alternatives have been emphasized. The relevant lecture notes can be accessed from the link below:

<https://drive.google.com/drive/folders/16s8eAxX4KEZmmWpPcgyvyMkVyGkyZgmZ>

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:

0

Score explanation: No, there are no such clinical practice experiences/placements available through the pharmacy school.

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:

3

Score explanation: This topic is covered in several different lessons.

In the Pharmaceutical Toxicology II course, climate change was associated with increasing frequency of natural disasters in the topic titled “ Disaster Toxicology and Physical, Chemical and Biological Components Causing Disasters ” . It has been stated that in low-income regions, especially due to the effects of climate change, there may be significant difficulties in accessing health services, clean water or food. These deficiencies negatively affect global health in a wide spectrum, especially by causing the formation of infectious diseases. You can access the mentioned lecture notes from the link below:

<https://drive.google.com/drive/folders/1wOI8cL81D8QxRnDGFVpubNysLbSnFzVj>

Within the scope of ECF584 Pharmaceutical Care course, the incidence of diseases such as asthma, diabetes, dementia is higher in groups exposed to inequality. The effects of climate change have the potential to deepen inequalities within society. This effect may particularly affect groups that are more vulnerable to environmental factors such as immigrant groups, low-income populations, children, the elderly, the disabled, and individuals with chronic medical conditions. Climate change outcomes such as high temperatures, increased natural disasters, and depletion of water resources may affect low-income communities and immigrant groups more, as these groups generally do not benefit sufficiently from economic and social resources. Access to health systems and medicines may decrease. In addition, children, the elderly, and individuals with chronic diseases may be more susceptible to health problems caused by climate change. Therefore, when developing strategies to combat climate change, the needs and risks of these vulnerable groups should be addressed as a priority, so that it is possible to reduce inequalities and protect the general health of society. The link to the mentioned lecture notes is given below:

https://drive.google.com/file/d/1GQveUJzdjfy_eDRAdyCq9iWynaRsD61R/view?usp=drivesdk

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:

2

Score explanation: This topic is covered in ECF519 Quality Assurance and Regulations course.

Within the scope of this course, detailed information was provided on the concept and importance of sustainable development, the existing gaps in this area within the field of pharmacy, and why we, as future pharmacists, should prioritize this issue; additionally, the responsibilities we will need to undertake in our professional lives—towards both patients and the environment—within the context of sustainable development in pharmacy were also discussed.

<https://drive.google.com/drive/u/1/folders/1ZDjs0IROal6Pz1QNz7EAIxAjaTxDMBBO>

Section Total (42 out of 69)

60.87%

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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 institution?

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:

3

Score explanation: Within the scope of the Biosphere Museum located at Hacettepe University, Assoc. Prof. Dr. Golshan Zare and Specialist Biologist Neziha Yağmur Diker, faculty members of our Faculty of Pharmacy, are conducting studies in the field of planetary health.

You can access the website of the Biosphere Museum via the link below:

<https://biyosfermuze.hacettepe.edu.tr/>

Assoc. Prof. Dr. Ayşegül Doğan, also a faculty member of our Faculty of Pharmacy, focuses her research on the use of green analytical chemistry and initiatives aimed at improving planetary health.

You can access her work via the link: <https://avesis.hacettepe.edu.tr/ayseguld>

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:	3
<p><i>Score explanation:</i> <i>"Hacettepe Üniversitesi Sürdürülebilir Yerleşkeler Koordinatörlüğü" is an organization established with the aim of informing individuals about environmental protection and sustainability, as well as taking and implementing the necessary measures regarding climate change and environmental pollution. To achieve these goals they organize various seminars, research and campaigns. For example, projects such as "Termos Kampanyası", "Beytepe and Sıhhiye Atık Toplanması" were carried out in 2023.</i></p> <p><i>You can access the official website of this department through the link:</i> https://syk.hacettepe.edu.tr/</p>	

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 <u>institution</u>?	
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
<i>Score explanation:</i> There is no process, and no efforts to create such a process.	

2.4. Does your <u>institution</u> 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:	3
<p><i>Score explanation:</i> <i>syk.hacettepe.edu.tr is Hacettepe University's official website on health and environment research and also contains seminars and projects organized under the umbrella of sustainability.</i></p> <p><i>The website also includes Hacettepe Üniversitesi Atık ve Atık Yönetimi Gazetesi 'Gündem-24' which is talking about recycle, sustainable development and "Planetary Health Report Card raporunda Hacettepe İmzası".</i></p> <p><i>You can access the news through the links:</i> https://syk.hacettepe.edu.tr/tr/hacettepe_universitesi_sifir_atik_ve_atik_yonetimi_gazetesi_-112 https://gazete.hacettepe.edu.tr/tr/haber/phrc_raporunda_hacettepe_imzasi-768</p> <p><i>Additionally, now there is a separate section for PHRC on their website. This section includes what PHRC is, its purpose, parameters and the reports of our institution from previous years.</i></p> <p><i>You can access the PHRC section through the link:</i> https://syk.hacettepe.edu.tr/tr/phrc_planetary_health_report_card-172</p>	

2.5. Has your <u>institution</u> 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>Score explanation: Hacettepe University Sustainability Campuses Coordination Office has been organizing "Sürdürülebilirlik Seminerleri" since 2023.</i></p>	

Also, the first “Çevre ve Atık Yönetimi Dizisi ” was held in 2024 across various faculties of our university.

In 2025, the “Çevre ve Atık Yönetimi Dizisi 25” was organized. This training series emphasized raising awareness among individuals and encouraging them to think about developing solutions, in response to the increasing impact of environmental problems on living beings.

You can access more information via the link:

https://syk.hacettepe.edu.tr/tr/cevre_ve_atik_yonetimi_egitim_dizisi_2025_beytepe_yerleskesi-145

Additionally, a seminar titled "Sürdürülebilirlik Bakış Açısıyla Geri Dönüşüm Kavramı ve Atık Yönetimi" was held at our Faculty of Pharmacy. During the seminar, the evolving meaning of the concept of recycling within the framework of sustainability, approaches to waste management, and current environmental responsibility policies were discussed.

2.6. Is your institution 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

Score explanation: The institution is not a member of such an organisation

Section Total (13 out of 17)

76.47%

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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 and environmental 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:	3
<p><i>Score explanation: The Farmasötik Gelişim Topluluğu within our faculty collaborated with a community organization called Esmiyor and invited them as speakers to the 7th Pharmaceutical Development Days congress. Furthermore, the 6th Pharmaceutical Development Days focused on sustainability, hosting expert speakers in the field. You can access the website through these link: 7th Pharmaceutical Development Days 2 , 6th Pharmaceutical Development Days 1, 6th Pharmaceutical Development Days 2</i></p> <p><i>The European Pharmaceutical Students' Association (EPSA), of which our faculty is a member, conducts research on One Health and planetary health. Additionally the main theme of the 45th Annual Congress held last year was 'One Health'. You can access the websites via these links link 1 45th EPSA Annual Congress</i></p>	

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:	0
<i>Score explanation: The institution/medical school have not offered such community-facing courses or events.</i>	

3.3. Does your <u>institution</u> 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
<i>Score explanation: Yes, planetary health and sustainable healthcare services are regularly included in our institution's communication channels. You can access the link to our faculty's work on sustainability, environmentally friendly pharmacy practices, and pharmaceutical footprint here.</i>	

3.4. Does the <u>institution</u> or <u>main affiliated hospital trust</u> 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
<i>Score explanation: Hacettepe University Lifelong Learning Center offers a paid, online certificate program titled "Antimicrobial Stewardship." The training program addresses concepts such as Antimicrobial Resistance and One Health in the second module. You can access the website via the link.</i>	

These programs are offered periodically and have specific durations. You can access the link to the previously offered program titled “Sustainable Development for Climate Change” [here](#).

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

Score explanation: The website of Hacettepe University Hospitals directs patients and clients to the relevant section of the Department of Public Health for information on climate change and its impacts on health. You can access the websites via the [link](#).

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: 2

Score explanation: Hacettepe University Hospitals direct patients and visitors seeking information on climate change and its impacts on health to the website of the Faculty of Medicine’s Department of Public Health. On this platform, under the section titled Current Health Information for the Public, resources such as infographics, information notes, posters, presentations, and informational documents aimed at raising public awareness are available. You can access the websites through these links: [link1](#), [link2](#), [link3](#)

Section Total (10 out of 14)

71.4%

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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:	1
<i>Score explanation: Faculty members encourage and provide comprehensive academic guidance for students interested in developing sustainability-themed TÜBİTAK (TÜBİTAK is the leading national agency in Türkiye that plans, funds, and conducts scientific research and development projects across various industries and academic fields.) 2209-A and 2209-B projects; however, this support does not include institutional funding.</i>	

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
<i>Score explanation: The students of our faculty are open to working on projects related to planetary health and sustainable healthcare, but due to a lack of available time, no projects have been realized. Apart from this, students like us, who have formed the "PHRC Team" with the goal of</i>	

obtaining a PHRC, receive sufficient support. When a project in this field is proposed, our academics provide adequate interest and guidance.

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:

2

Score explanation: The PHRC Team, which actively operates within our faculty, has an Instagram account called @huef_phrc (https://www.instagram.com/huef_phrc/) to announce the reports they publish.

(https://syk.hacettepe.edu.tr/tr/phrc_planetary_health_report_card-172)

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:

1

Score explanation: The students of our faculty are open to working on projects related to planetary health and sustainable healthcare, but due to a lack of available time, no projects have been realized. Apart from this, students like us, who have formed the "PHRC Team" with the goal of obtaining a PHRC, receive sufficient support. When a project in this field is proposed, our academics provide adequate interest and guidance.

4.5. Is there a student liaison representing sustainability interests who serves on a <u>department or institutional</u> 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:	0
<i>Score explanation: There is no such student representative.</i>	

4.6. In the past year, has the <u>institution</u> 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.	0
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.	0
Cultural arts events, installations or performances related to planetary health that have students as an intended audience.	0
Local volunteer opportunities related to building community resilience to anthropogenic environmental impacts.	0
Wilderness or outdoors programs (e.g., that organise hiking, backpacking, kayaking, or other outings for students)	1
<p><i>Score explanation: As part of the UN101 course for the 2023-2024 academic year across the university, Dr. Dilara Tüfekçioğlu informed us about "Zero Waste Management." She emphasized the daily amount of household waste and what percentage of it is suitable for recycling. She also discussed what we can do individually and mentioned that waste management is implemented at the institutional level. Additionally, Assoc. Prof. Pınar Gözen Ercan held a talk on the 17 interconnected goals of the 2030 Sustainable Development Agenda (SDA) and what we can do as individuals. You can view the content of the talk at this link: https://uni101.hacettepe.edu.tr/soylesiler-2023/</i></p> <p><i>As students of the Faculty of Pharmacy, we are closely engaged with plants. Therefore, our courses, such as botany and pharmacognosy, include a year-end field trip. At the end of the year, a trip was organized to the forested area of Hacettepe University's Beytepe Campus, where information was provided on wildlife, the drugs derived from this wildlife for human use, and the environmental impacts of climate change.</i></p>	

Section Total (7 out of 15)	46.67%
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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:	3
<p><i>Score explanation: Our university has a sustainability office called the “Hacettepe Üniversitesi Sürdürülebilir Yerleşkeler Koordinatörlüğü (Hacettepe University Sustainability Campuses Coordination Office)”, which aims to raise awareness about the importance of environmental protection across various fields and to promote sustainability consciousness among individuals who are part of this environment. You can find more information about the “Hacettepe Üniversitesi Sürdürülebilir Yerleşkeler Koordinatörlüğü” through the links below:</i></p> <p>https://syk.hacettepe.edu.tr</p> <p>https://sustainability.hacettepe.edu.tr</p> <p><i>At Hacettepe Üniversite Hastanesi, sustainability activities are carried out collaboratively by the coordination team members of the Hacettepe Üniversitesi Sürdürülebilir Yerleşkeler Koordinatörlüğü (particularly academics affiliated with health-related fields), together with hospital waste management personnel and the administrative services units. You can access the organizational chart through the link below:</i></p> <p>https://syk.hacettepe.edu.tr/tr/organizasyon_semasi-4</p>	

5.2. How ambitious is your institution's 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:

1

Score explanation: Hacettepe University has articulated its intention and overall goals to reduce its carbon footprint in line with its strategic objectives and has carried out various initiatives in this regard. For example, the University participates in the UI GreenMetric World University Rankings system, through which it regularly monitors its energy management, climate change, and carbon emission data.

Through the Sustainability Campuses Coordination Office, the University publishes an annual "Sustainability Report" and incorporates carbon footprint reduction targets into its strategic plan. Additionally, campuses such as Sihhiye Campus have been awarded the Zero Waste Certificate, which indirectly contributes to emission reduction efforts. The links to the relevant sources are provided below:

Hacettepe University 2024–2025 Sustainability Report:

https://syk.hacettepe.edu.tr/tr/20242025_surdurulebilirlik_raporu_yayinlandi-170

UI GreenMetric World University Rankings (Hacettepe Profile):

https://syk.hacettepe.edu.tr/tr/universitemiz_ui_greenmetric_2025_dunya_siralamasinda_183_siraya-174

Zero Waste Certificates:

https://syk.hacettepe.edu.tr/tr/sifir_atik_belgesi_sihhiye_verleskesi-68

https://syk.hacettepe.edu.tr/tr/sifir_atik_belgesi_beytepe_verleskesi-57

However, the University does not currently have an internationally validated roadmap for 2030 or 2040.

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

Score explanation: Institution buildings source <20% of energy needs from off-site and/or on-site renewable energy.

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

Score explanation: Hacettepe University adopts both the UI GreenMetric ranking system—which evaluates and scores the sustainability of buildings under the categories of “Setting and Infrastructure” and “Energy and Climate Change”—and the Zero Waste Regulation of the Republic of Türkiye Ministry of Environment, Urbanization and Climate Change as fundamental guiding frameworks. These are applied in the design of new buildings, the improvement of existing structures, and in the overall operation of all university buildings.

While new buildings are constructed in line with sustainable design principles, existing buildings undergo energy-efficiency-focused renovation works (such as LED retrofitting and the implementation of smart building systems).

Below are the relevant reference links:

Some Studies on Hacettepe's Energy Management:

https://syk.hacettepe.edu.tr/tr/enerji_yonetimi-42

Zero Waste Regulation:

<https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=32659&MevzuatTur=7&MevzuatTertip=5>

UI GreenMetric Report:

https://gazete.hacettepe.edu.tr/fs_/HABERLER/2025/Mart/rapor.pdf

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:

2

Score explanation: Hacettepe University Sıhhiye Campus is located within walking distance (approximately 25 minutes) of Kızılay Square, which is considered the center of Ankara. In addition, several nearby public transportation stops are situated about a 15-minute walk from the campus.

In addition, shuttle services are available to facilitate transportation between the university's two campuses (Sıhhiye and Beytepe). Apart from the shuttles, transportation between is provided by the subway and buses, some of which are electric and can be used by students free of charge.

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:

2

Score explanation: In the Hacettepe University Faculty of Pharmacy building, waste and recycling bins are available on every floor, and recyclable waste is separated according to material type.

In addition, in the cafeteria, students are required to separate their waste into organic and non-organic categories. Through the use of composting machines, which play a significant role in the recycling of organic waste, and their implementation at the Temporary Waste Center located on the Beytepe Campus by the Hacettepe Üniversitesi Sürdürülebilir Yerleşkeler Koordinatörlüğü, the university aims to achieve its waste reduction targets.

For your review, the link to the “Zero Waste and Waste Management” page of the Hacettepe Üniversitesi Sürdürülebilir Yerleşkeler Koordinatörlüğü is provided below:

https://syk.hacettepe.edu.tr/tr/sifir_atik_ve_atik_yonetimi-5

Additionally, there is a video explaining the importance of separating recyclable waste according to material types. You can it via the link below:

https://syk.hacettepe.edu.tr/tr/hacettepe_universitesi_sifir_atik_ve_atik_yonetimi_tanitim_film-164

5.7. Does the institution 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:

1

Score explanation: Hacettepe University carries out its food and beverage management within the framework of its institutional environmental policies and its “Healthy Campus” vision. The University implements the “Sıfır Atık Yönetmeliği (Zero Waste Regulation)” in its cafeterias and canteens, undertaking efforts to separate waste and reduce food waste.

Menus prepared under the supervision of dietitians are designed with nutritional balance in mind, and healthy options are offered in line with the “Nutrition-Friendly University” criteria. However, although vegetarian options are available within the institution, there is currently no official red meat reduction policy such as “Meatless Monday,” no procurement directive mandating purchases exclusively from local producers, and no binding “Sustainable Food Guide” that completely bans plastic use.

Existing practices remain within the scope of general environmental regulations, and a comprehensive, food system-specific action plan has not yet been formally documented.

Relevant sources can be found at the links below:

Hacettepe University 2024–2025 Sustainability Report:

https://syk.hacettepe.edu.tr/tr/20242025_surdurulebilirlik_raporu_yayinlandi-170

Zero Waste Regulation:

<https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=32659&MevzuatTur=7&MevzuatTertip=5>

5.8. Does the institution 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:

1

Score explanation: As a public institution, Hacettepe University conducts its procurement processes in accordance with the “4734 Sayılı Kamu İhale Kanunu”. At the institutional level, sustainability criteria have been integrated into tender specifications in a limited and sector-specific manner.

Hacettepe University observes high energy efficiency standards (A+ and above) in the procurement of technical equipment and household appliances; gives due consideration to the use of biodegradable cleaning materials in line with the Sfir Atık Yönetmeliği; and encourages the use of recycled materials in paper products.

However, current practices largely remain at the level of compliance with national regulations and a comprehensive system that includes supplier carbon footprint assessments or social responsibility audits has not yet been fully operationalized.

Relevant sources are listed below:

Hacettepe University 2024–2025 Sustainability Report:

https://syk.hacettepe.edu.tr/tr/20242025_surdurulebilirlik_raporu_yayinlandi-170

Public Procurement Law No. 4734:

<https://mevzuat.gov.tr/mevzuat?MevzuatNo=4734&MevzuatTur=1&MevzuatTertip=5>

Zero Waste Regulation:

<https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=32659&MevzuatTur=7&MevzuatTertip=5>

UI GreenMetric 2025 Hacettepe Evaluation Results:

https://gazete.hacettepe.edu.tr/fs_/HABERLER/2025/Mart/rapor.pdf

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:

0

*Score explanation: There are **no** sustainability guidelines for institution events.*

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

Score explanation: Studies on green chemistry applications are conducted within the Department of Analytical Chemistry at Hacettepe University Faculty of Pharmacy. You can find more details at the link below:

https://farmaanalitik.hacettepe.edu.tr/tr/calisma_alanlari4

These studies have been implemented not only to reduce the number of chemical methods used in qualitative and quantitative analyses in order to protect the environment, but also to minimize the amount of chemicals consumed.

Across the university, zero-waste practices, waste separation systems, and hazardous waste management processes are carried out through the Sustainability Campuses Coordination Office. These institutional practices also support the proper management of chemical and other types of waste generated in laboratory environments.

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:	0
<i>Score explanation: Yes, the institution has investments with fossil-fuel companies and there have been no efforts to change that.</i>	

Section Total (15 out of 32)	46.88%
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Back to Summary Page [here](#)

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

Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	$(42/69) \times 100 = 60.87\%$	B-
Interdisciplinary Research (17.5%)	$(13/17) \times 100 = 76.47\%$	B+
Community Outreach and Advocacy (17.5%)	$(10/14) \times 100 = 71.43\%$	B
Support for Student-led Planetary Health Initiatives (17.5%)	$(7/15) \times 100 = 46.67\%$	C
Campus Sustainability (17.5%)	$(15/32) \times 100 = 46.88\%$	C
Institutional Grade	$(60.87 \times 0.3 + 76.47 \times 0.175 + 71.43 \times 0.175 + 46.67 \times 0.175 + 46.88 \times 0.175) = 60.51\%$	B-

Report Card Trends

Section Overview

This graph demonstrates trends in overall and section grades for the years in which Hacettepe University Faculty of Pharmacy has participated in the Planetary Health Report Card initiative.

