Planetary Health Report Card (Medicine) 2026:

Wake Forest University School of Medicine

2025-2026 Contributing Team:

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Land acknowledgment: Atrium Health Wake Forest Baptist and Wake Forest University School of Medicine strive to be wise and gracious stewards of the spaces and land on which we stand and the resources we leverage to provide state of the art education, training, research, and medical care to the communities we serve. It is important to recognize the longstanding history of escape, forced removal, and resettlement that has brought all of us to reside on this land. We respectfully and collectively acknowledge and value the Indigenous people and nations, who have been stewards of this land throughout the generations past, and the generations to come.

The campuses of Atrium Health Wake Forest Baptist and Wake Forest University School of Medicine reside on the ancestral lands of the Tutelo, Occaneechi, and Keyauwee nations. Additional Atrium Health Wake Forest Baptist locations are located on the ancestral lands of the Saponi, Catawba, Saura, and Sissipahaw nations. We recognize that North Carolina is currently home to the following Indigenous tribes: The Eastern Band Cherokee, Coharie, Haliwa-Saponi, Lumbee, Meherrin, Occaneechi Band of the Saponi, Sappony, Tuscarora and the Waccamaw-Siouan, in addition to many other individuals belonging to Indigenous nations outside of North Carolina.

We celebrate and honor the original and present-day Indigenous people of this land, and commit to continued strategic action to respect Indigenous sovereignty and elevate Indigenous presence, healthcare needs, and contributions to our communities today.

This land acknowledgement was drafted in collaboration with the Indigenous Peoples and Allies Affinity group of Atrium Health Wake Forest Baptist.

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Summary of Findings

Overall Grade	B-

Curriculum	C

- The first steps of intentional planetary health (PH) integration into the Wake Forest University School of Medicine (WFUSM) preclinical curriculum began this year, with the implementation of a few PH lectures into the first year of medical school, testable material in two blocks of first and second year, and some instances of PH connections in third year. With the existing connections to PH published in our previous report, the process of including more PH content has been largely successful. However, the PH lectures that have been integrated are generally one-offs that do not represent all organ systems in preclinical education. More consistent integration of planetary health content in relevant, intuitive areas will be paramount in increasing awareness, clinical applications, and testable material.
- **Recommendations:** A student-led PH Curriculum Integration Team reviewed all of the preclinical content for opportunities to integrate in alignment with existing lectures and learning objectives. These recommendations were provided to each course director, with the majority expressing positive support. With the upcoming launch of the WFUSM Center for Planetary Health (CPH), we strongly encourage course directors to include these recommendations in their courses, as these align with the goals of the CPH with administrative buy-in. We also encourage continued PH integration in case-based learning sessions on the Charlotte campus as the curriculum continues to be developed. Clinical applications for this material during the clerkship years should continue to be developed. Material that explores how the healthcare industry and patients are affected by extreme weather events should be incorporated to prepare students for systems-level thinking.

Interdisciplinary Research	A-

- Wake Forest University (WFU) hosts the Sabin Center for Environment and Sustainability, which is the primary hub for interdisciplinary planetary health research across all undergraduate and graduate programs at Wake Forest. Within WFUSM, the Maya Angelou Research Center for Healthy Communities (MARCH) is the primary research group involved with environmental justice research. While involvement with the Sabin Center is available to medical students and faculty, it is not largely utilized. Community input on research is fragmented, with minimal evidence for feedback on environmentally-focused projects. WFUSM plans to establish a community board focused on environment and sustainability, but this has not yet been implemented.
- **Recommendations**: Through the WFUSM CPH, we encourage the research sector to focus on strengthening its relationship with the Sabin Center to optimize medical student and faculty involvement. Current efforts should be publicly amplified and championed through a streamlined website and social media to increase engagement. With this, the establishment of a small grant pool to support faculty interested in integrating planetary health themes into their research will also create more opportunities for interdisciplinary involvement with health-related projects. Lastly, we recommend that the Senior Associate Dean of Planetary Health support an application for WFUSM to become a member of the Planetary Health Alliance, which would formalize the school's commitment to expanding involvement in PHand provide students and faculty with access to further resources.

Community Outreach and Advocacy	C

- WFUSM's student programs and organizations provide opportunities for community engagement and partnerships. WFUSM also has a sustainability newsletter, but this has not been circulated in a long time and is generally inaccessible to students looking to become more involved. In a clinical capacity, some continuing education opportunities are available to students and hospital employees but these resources are not regularly updated and are also inaccessible.

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- **Recommendations**: The WFUSM CPH should lead the charge to expand community partnerships with sustainability and justice goals to promote student and institutional advocacy. In addition, WFUSM should include internal and external educational materials for dissemination during lectures and health fairs to ensure that students, faculty, and community members stay informed about environmental determinants of health and ways to mitigate these risks. WFUSM should also promote conferences with a community focus to medical students for attendance, poster presentation, and networking to continue fostering new relationships in this area.

Support for Student-Led Initiatives	B

- WFUSM has encouraged and supported student-led efforts in PH. While specific PH funding opportunities are not currently offered, students can choose to apply for general grants and research that can support a PH project. Scholarly programs specific to WFUSM also provide opportunities for PH involvement, but this requires very intentional framing and structure to be successful. Overall, students are responsible for pursuing avenues of support and designing initiatives related to planetary health, rather than institutional resources that directly emphasize this work.
- **Recommendations**: The WFUSM CPH should create more designated opportunities for sustainability research, volunteering, and projects to streamline student and faculty involvement via its website. This would incentivize students to become more involved with planetary health and provide students with the necessary resources to pursue such initiatives. WFUSM should consider a sustainability liaison position in the Student Government Association to ensure sustainability is considered in student decision-making and planning.

Campus Sustainability	C-

- WFUSM campus buildings are Leadership in Energy and Environmental Design (LEED) certified, with WFU also prioritizing retrofitting existing buildings on its campus. WFU has also committed to offsetting carbon emissions through a solar energy buy-back program. While Atrium Health, the healthcare system WFUSM operates under, has committed to a 50% reduction in carbon emissions by 2030 and carbon neutrality by 2050, WFUSM itself has not committed to a climate action plan. Most recently, the addition of the Pearl building at the Charlotte campus uses primarily LEED certified electric energy and produces net-zero carbon emissions. Much of the WFUSM campus sustainability efforts are led by individuals, which, with institutional support, could cause a ripple effect of change across the campus.
- **Recommendations**: WFUSM should develop a strategic plan to reduce carbon emissions. Also, establishing sustainability guidelines for school-sponsored events and laboratory management will help reduce overall waste production. To aid these goals, a sustainability officer should be appointed to manage and encourage commitment to sustainability goals. WFUSM should also consider partnering with a local composting service to expand its current recycling program and strengthen community relationships.

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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.

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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.

- **Medical School/Department vs. Institution:** When "Medical school" is specified in the report card, this only refers to curriculum and resources offered by the School/department of Medicine 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 medical students, no matter where in the institution the resource comes from or if it is

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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 the 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

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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.

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Planetary Health Curriculum

Section Overview: ***This section evaluates the integration of relevant planetary health topics into the medical 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. Did your medical school offer elective courses (student selected modules) to engage students in Education for Sustainable Healthcare or Planetary Health in the last year?	
Yes, the medical school has offered **more than one** elective whose primary focus is ESH/planetary health in the past year. (3 points)	
Yes, the medical school has offered **one** elective whose primary focus is ESH/planetary health in the past year. (2 points)	
The medical school does **not** have any electives whose primary focus is ESH/planetary health, but there are one or more electives that include a **lecture** on planetary health. (1 point)	
No, the medical school has **not** offered any electives on planetary health or electives that include ESH/planetary health topics in the past year. (0 points)	
Score Assigned:	0
Score explanation: There are no electives on planetary health or electives that include Education for Sustainable Healthcare (ESH) or PH topics offered at WFUSM.	

Curriculum: Health Effects of Climate Change

1.2. Does your medical school curriculum address the relationship between extreme heat, health risks, 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:	2
Score explanation: *Winston-Salem Campus:*	

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The "Nephrolithiasis" lecture during the renal block of M2 year specifically mentions the increased risk of kidney stone formation due to rising ambient temperatures and changes in the environment. It also discusses the strong correlation between months with higher temperatures and monthly stone rate. In addition, it covers the severe morbidity of kidney stones, directly addressing the relationship between extreme heat, rising ambient temperatures, and increased health risks. In "Learning to Learn, Acclimating to the Profession, Understanding Oneself and Others, New Words and Ideas, Career Exploration, and Healthy Living" (LAUNCH), a required curriculum course, the planetary health session discusses the impacts of extreme heat on health in terms of direct impacts such as heat stroke/exhaustion, increasing the spread of vector-borne illness, and more potent/longer allergy seasons.

Charlotte Campus:
Same as above.

1.3. Does your <u>medical school</u> curriculum address the impacts of extreme weather events on individual health and/or on healthcare systems?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	2

Score explanation:
Winston-Salem Campus:
During LAUNCH, the planetary health session covers the impact of extreme weather on individual health by exploring how extreme weather leads to loss of homes, impacts mental health, and directly leads to injury via trauma/drowning. It also explores how extreme weather events can impact healthcare systems by leading to contamination of the water supply, disruption of the supply chain/distribution of essential medical services, including lack of medical supplies and access to potable water. This session specifically covers the impact of Hurricanes Katrina and Helene on intravenous fluids. First-year students learn about Leptospira interrogans during the bacteriology unit during "Spirochetes," and there is a mention of increased exposure during times of flooding in urban settings. However, this is not discussed much further, and the impacts of flooding on health, other than the increased risk of this pathogen, are not mentioned.

Charlotte Campus:
Same as above.

1.4. Does your <u>medical school</u> curriculum address the impact of climate change on the changing patterns of infectious diseases?
This topic was explored **in depth** by the **core** curriculum. (3 points)
This topic was **briefly** covered in the **core** curriculum. (2 points)

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This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	2
Score explanation: *Winston-Salem Campus:* *The PH lecture during the M1 courses, Metabolism & Defense (MAD) and Microbiology & Infectious Disease (MID), discusses vector habitat expansion and the spread of Lyme disease, West Nile, and other vector borne diseases due to increasing global temperatures. This topic is also covered during the LAUNCH planetary health session. First-year students learn about the shifting regions of different pathogens throughout the microbiology curriculum. This includes a mention of increasing incidence of tick-borne illness due to climate change, West Nile Virus epidemiology changes due to climate change, and Dengue virus epidemiology changes due to climate change, all during a lecture called "Fever and Rash Viruses." Additionally, this is mentioned in a team-based learning activity called, "Center for Disease Control Simulation."* *Charlotte Campus:* *Same as above. This material was also included in a quiz during the MID course as a knowledge check for students.*	

1.5. Does your <u>medical school</u> curriculum address the respiratory health effects of climate change and air pollution?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	2
Score explanation: *Winston-Salem Campus:* *The PH lecture during the M1 course, MAD, discusses air pollution worsening respiratory diseases such as asthma. It also discusses how climate change prolongs pollen seasons and contributes to increasing allergenic responses. The LAUNCH PH session also explores the US Air Quality Index (AQI) and health recommendations for each level of the AQI. The lecture entitled "Planetary Health" that is given during the M1 course, MAD, discusses the impacts of the climate on obstructive lung diseases, specifically in regard to the exacerbation of these conditions by pollutants and the changing environment.* *Charlotte Campus:* *Same as above.*	

1.6. Does your <u>medical school</u> curriculum address the cardiovascular health effects of climate change, including increased heat?

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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:
Winston-Salem Campus:
The M1 LAUNCH PH session addresses the impact of extreme heat on cardiovascular health briefly, specifically talking about cardiovascular failure due to increased cardiac stress from heat stroke/exhaustion. There is no mention of climate change or climate health during the cardiovascular curriculum.

Charlotte Campus:
The M1 LAUNCH PH lecture makes mention of extreme heat and the impact on cardiovascular health, heat stroke, and heat exhaustion. The pre-clinical cardiology curriculum has not taken place on the Charlotte campus yet at the time of evaluation.

1.7. Does your <u>medical school</u> 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:	2

Score explanation:
Winston-Salem Campus:
The LAUNCH PH session briefly mentions the mental health impacts of losing homes, forced migration, civil conflict, and loss of jobs/income due to extreme weather events and environmental degradation. There is no mention of climate change or climate health during the neuropsychiatric curriculum. It is important to note, however, that a student planetary health preclinical curriculum committee has recommended suggestions for this course to implement these topics in the upcoming school year.

Charlotte Campus:
The LAUNCH PH session briefly mentions the mental health impacts of losing homes, forced migration, civil conflict, and loss of jobs/income due to extreme weather events and environmental degradation. The pre-clinical psychiatry and neurology curriculum has not taken place on the Charlotte campus yet at the time of evaluation.

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1.8. Does your medical school curriculum address the relationships between health, individual patient food and water security, ecosystem health, 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:	2
Score explanation: *Winston-Salem Campus:* *The LAUNCH PH session explores the impact of crop failure due to climate change on patient access to food. Additionally, this session explores the impact of extreme weather and climate change on water supply and quality, specifically discussing cholera, leptospirosis, algal blooms, and campylobacter. The Medicine And Patients in Society (MAPS) course at WFUSM addresses the relationship between health, individual patient food and water security, ecosystem health, and climate change in a lecture entitled "Social Determinants of Health and Health Advocacy." This lecture is specific to these problems in the Winston-Salem community and provides students with resources for helping patients navigate and overcome barriers. The connection made between these topics and ecosystem health/climate change specifically is minimal.* *Charlotte Campus:* *Same as above.*	

1.9. Does your medical school curriculum address the outsized impact of climate change on marginalised populations such as those with low SES, women, communities of colour, Indigenous communities, children, homeless populations, and older adults?	
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: *Winston-Salem Campus:* *The PH lecture during the M1 course, MAD, discusses underserved communities facing higher pollutant exposure and limited healthcare access, impacting immune health. It specifically explores how living near highways increases exposure to carbon monoxide and other pollutants, how lack of air conditioning forces open windows during bad air quality days, how food deserts limit access to anti-inflammatory diets, and how limited healthcare access and reliance on emergency department visits indicate systemic inequities. During the M3 emergency medicine rotation, there is a learning module titled, "Environmental Health, Housing, and Homelessness" that breaks down the*	

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environmental determinants of health and how those without consistent housing are disadvantaged, especially within the healthcare system. *Charlotte Campus:* *Currently, the Charlotte MAPS curriculum discusses social drivers of health and food insecurity in the session about social determinants of health. However, these topics are not explored in the context of planetary health.*

1.10. Does your <u>medical school</u> curriculum address the unequal regional health impacts of climate change globally?	
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: There is currently no mention of the unequal regional health impacts of climate change globally at WFUSM.	

Curriculum: Environmental Health & the Effects of Anthropogenic Toxins on Human Health

1.11. Does your <u>medical school</u> curriculum address the reproductive health effects of industry-related environmental toxins (e.g. air pollution, pesticides, microplastics)?	
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: *Winston-Salem Campus:* *There is no mention of reproductive health effects of industry related environmental toxins at the Winston-Salem campus of WFUSM. It is important to note, however, that a student planetary health preclinical curriculum committee has recommended suggestions for this course to implement these topics in the upcoming school year.* *Charlotte Campus:* *There is a problem-based learning (PBL) case discussing environmental endocrine disruptors and their relation to thyroid function as a part of the Endocrine and Reproduction block.*	

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1.12. Does your medical school curriculum address important human-caused environmental threats that are relevant to the university's surrounding community?	
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: *Winston-Salem Campus:* *As of this year, the WFUSM medical school curriculum does not address the human-caused environmental threats at this time. Last year, this was mentioned in MAPS through discussion of the Weaver Fertilizer Plant Fire (2022) that had both social and environmental consequences; however, this topic was removed because it was deemed no longer timely.* *Charlotte Campus:* *The WFUSM medical school curriculum in Charlotte does not currently address human-caused environmental threats that are relevant to our surrounding community.*	

1.13. To what extent does your medical school emphasise the importance of Indigenous knowledge and value systems as essential components of planetary health solutions?	
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: Indigenous knowledge and value systems are currently not mentioned in the curriculum at WFUSM.	

1.14. Does your medical school curriculum address the outsized impact of anthropogenic environmental toxins on marginalised populations such as those with low SES, women, communities of colour, children, homeless populations, Indigenous populations, and older adults?
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)

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This topic was **not** covered. (0 points)	
Score Assigned:	2

Score explanation:
Winston-Salem Campus:
During the LAUNCH PH lecture, there is discussion of the outsized impact of anthropogenic toxins on marginalized populations, as the lecture addresses how industrial pollution disproportionately affects people in areas with lower socioeconomic status. Additionally, Winston-Salem has a deeply rooted history of housing policy such as redlining and environmental racism, which is addressed in this lecture in the context of lower socioeconomic status and the impact of toxins. Between second and third year, students complete "Transition to Patient Care," during which there is a lecture that emphasizes inequities in environmental exposures on marginalized populations. During the M3 OBGYN clerkship, one student from each group was assigned to explore Diaper Bank of North Carolina. Their local warehouse was destroyed by the Weaver Plant Fire in 2022, causing many women of low socioeconomic status to have a decreased supply of donated diapers at their local diaper banks.

Charlotte Campus:
This campus also has the LAUNCH PH session that includes discussion of industrial pollution on vulnerable populations, as mentioned above.

Curriculum: Sustainability

1.15. Does your <u>medical school</u> 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 point)	
Score Assigned:	2

Score explanation:
Winston-Salem Campus:
Plant-based diets are directly mentioned during the gastrointestinal (GI) block during a lecture entitled "Fad Diets," which discusses the benefits of vegetarian, vegan, and Mediterranean diets. It does make a connection to the environmental impact of these diets as well, but it does not discuss these in-depth. These topics are re-emphasized in the cardiology and nephrology blocks as well, which discuss the benefits of the Mediterranean and low-salt diets. These blocks, however, do not discuss the environmental impact. It is important to note that a student planetary health preclinical curriculum team has recommended suggestions for this course to implement these topics in the upcoming school year.

Charlotte Campus:
There is currently no direct mention of plant-based diets during the GI curriculum as it relates to environmental impact.

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1.16. Does your medical 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:	2
Score explanation: *Winston-Salem Campus:* *The healthcare system's carbon footprint is addressed in the "Transition to Patient Care" (T2PC) PH lecture/activity held for incoming 3rd year medical students prior to beginning clinical duties.* *Charlotte Campus:* *Same as above.*	

1.17. Does your medical school curriculum cover these components of sustainable clinical practice in the core curriculum? (points for each)	**Score**
The health **and** environmental **co-benefits** of **avoiding** over-medicalisation, over-investigation and/or over-treatment (2 points)	2
The environmental impact of **pharmaceuticals** and over-prescribing as a cause of climate health harm. Alternatively teaching on **deprescribing** where possible and its environmental and health co-benefits would fulfil this metric. (2 points) .	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. This is commonly known as social prescribing in the UK. (1 point)	1
Environmental impact of **surgical** healthcare on planetary health and the climate crisis, and how can it be mitigated. (1 point)	0
The impact of **anaesthetic** gases on the healthcare carbon footprint and ways to reduce anaesthesia's environmental impacts, such as total intravenous anaesthesia or choosing less environmentally harmful anaesthetic gas options with reduced greenhouse gas emissions. (1 point)	0
The impact of **inhalers** on the healthcare carbon footprint and the environmental benefit of dry powdered inhalers over metered dose inhalers. (1 point)	1
Waste production within healthcare **clinics** and strategies for reducing waste in clinical activities (e.g. single use items in the inpatient or outpatient setting) (1 point)	0
Score explanation: *Winston-Salem Campus:*	

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There are discussions regarding the health effects of over medicalisation, over treatment, non-pharmaceutical management, and deprescribing longitudinally throughout the pharmacology curriculum, but there is no discussion regarding how those things affect the environment. However, the longitudinal pharmacology thread does discuss the impact of inhalers on the healthcare carbon footprint during the pulmonology block of the second year. Additionally, there is a lecture during the bacteriology portion of the curriculum entitled "Antibiotic Stewardship" that discusses antibiotic stewardship for the benefits of patients in addition to the larger scope of public health and environmental impact. In the lectures during cardiology and nephrology about hypertension (each called "Hypertension"), non-medical management is the first recommendation for treatment, including through exercise, diet, and stress management. Non-medical management is also suggested throughout the psychiatry curriculum, specifically in "Anxiety Disorders," "PTSD," "Somatoform Disorders," and "Eating Disorders." There is currently no education about the impact of surgical specialties, anesthetic gases, inhalers, and waste production directly in the core curriculum.

Charlotte Campus:
There are currently no explicit mentions of carbon footprint as a part of education on the Charlotte campus. However, much like the Winston-Salem campus, they begin discussing the importance of non-pharmeceutical management in the form of antibiotic stewardship as part of the pharmacology thread throughout the pre-clinical curriculum and case-based learning.

Curriculum: Clinical Applications

1.18. In training for patient encounters, does your <u>medical school's</u> curriculum introduce strategies to have conversations with patients about the health effects of climate change?	
Yes, there are strategies introduced for having conversations with patients about climate change in the **core** curriculum. (2 points)	
Yes, there are strategies introduced for having conversations with patients about climate change in **elective** coursework. (1 point)	
No, there are **not** strategies introduced for having conversations with patients about climate change. (0 points)	
Score Assigned:	0
Score explanation: There is currently no mention of strategies for having conversations with patients about climate change in the curriculum at WFUSM.	

1.19. In training for patient encounters, does your <u>medical school's</u> curriculum introduce strategies for taking an environmental history or exposure history?	
Yes, the **core** curriculum includes strategies for taking an environmental history. (2 points)	
Only **elective** coursework includes strategies for taking an environmental history. (1 point)	
No, the curriculum does **not** include strategies for taking an environmental history. (0 points)	
Score Assigned:	2

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Score explanation:
Winston-Salem Campus:
Throughout the Clinical Skills Foundations and Clinical Skills Applications curriculum, students are given the opportunity to take environmental, occupational, and travel histories from patients. This is started very early in training, integrating it as part of the regular social history. Further, it is explored more in-depth during the virology and pulmonology sections of the course, as it becomes very relevant during this portion of the course. Since last year, the mention of home and environmental exposures has been expanded upon during the pulmonology portion.

Charlotte Campus:
Up to this point, this campus has discussed travel history but have not yet discussed taking an in-depth environmental and occupational history. Moreover, the Clinical Skills course directors are following the same content as in Winston-Salem over the rest of the pre-clinical education. This campus is new and has only completed one semester's worth of curriculum thus far.

Curriculum: Administrative Support for Planetary Health

1.20. Is your <u>medical school</u> currently in the process of implementing or improving Education for Sustainable Healthcare (ESH)/planetary health education?	
Yes, the medical school is currently in the process of making **major** improvements to ESH/planetary health education. (4 points)	
Yes, the medical 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:
Winston-Salem Campus:
At a monthly Subcommittee on Preclinical Education (SOPE) meeting, WFUSM preclinical professors and administrators invited a student-led presentation that presented last year's PHRC and ways to integrate planetary health into the core curriculum. Administration was very receptive in beginning to make incremental changes to the curriculum to include sustainability themes. This year, there has also been dedicated lecture time for required planetary health lectures during the LAUNCH and MAD courses during first-year. After last year's PHRC publication, the WFUSM Student Planetary Health Curriculum Integration Team was formed in Spring 2025 to gather resources for integration in every block of the preclinical curriculum. Recommendations were sent to each course director with specific suggestions that align with existing learning objectives and content, with the goal of implementation in the 2026-2027 school year. Also after last year's PHRC publication, WFUSM began planning to develop a CPH which will launch in Spring 2026. It aims to be a collaborative, interdisciplinary center that improves planetary health education, research and community engagement. Sustainability student groups, leaders, and the curricular recommendations mentioned are currently slated to provide input on all three areas of involvement, with an emphasis on medical education.

Charlotte Campus:
The Charlotte campus has case-based learning that involve planetary health themes for their pre-clerkship years. These involve weekly cases that springboard learning for foundational and clinical sciences (i.e. in MAD/MID there is mention of climate change with a case focused on

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malaria, a GI case on inflammatory bowel diseases addresses how pollutants cause exacerbations in autoimmune conditions). There is also dedicated time for planetary health content during LAUNCH of M1 year. That this campus is new and has only completed one semester's worth of curriculum thus far, with plans to integrate planetary health into the rest of preclinicals and clinical learning.

1.21. How well are the aforementioned planetary health/Education for Sustainable Healthcare topics integrated longitudinally into the core curriculum?	
Planetary health/ESH topics are **well integrated** into the core medical school curriculum. (6 points)	
Some planetary health/ESH topics are appropriately integrated into the core medical student curriculum. (4 points)	
Planetary health/ESH is not integrated and is primarily addressed in **(a) standalone lecture(s).** (2 points)	
There is **minimal/no** education for sustainable healthcare. (0 points)	
Score Assigned:	4

Score explanation:
Winston-Salem Campus:
There are PH themes scattered throughout the core curriculum from orientation (LAUNCH) through the third-year clerkships. The majority of the ESH topics are covered during the M1 and M2 preclinical years, during MAD, LAUNCH, the renal block, and longitudinal courses such as pharmacology and MAPS, all specifically mentioned above. In the last year, WFUSM has shifted the LAUNCH curriculum to be longitudinal in the first year of medical school; furthermore, the introduction of planetary health during LAUNCH has become longitudinal in comparison to the brief structure in the past. It is important to note, however, that the M2 curriculum does not have any longitudinal integration as a result of LAUNCH being completed in the first year.

Charlotte Campus:
The case-based learning on this campus integrates planetary health themes into most curricular blocks, with examples mentioned previously. Additionally, the longitudinal nature of the LAUNCH curriculum has allowed for further integration of planetary health in the curriculum.

1.22. Does your medical school employ a member of faculty to specifically oversee and take responsibility for the incorporation of planetary health and sustainable healthcare as a theme throughout the course?	
Yes, the **medical school** has a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare. (1 point)	
No, the **medical school** does **not** have a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare. (0 points)	
Score Assigned:	1

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Score explanation: Dr. David Callaway is the WFUSM Dean of Planetary Health. He can be contacted by email, available to students and faculty members. (david.callaway@advocatehealth.org)

1.23. 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: *Winston-Salem Campus:* *The end of the PH lecture during MAD asks the audience what public health or policy interventions could be made to reduce asthma burden in a low socioeconomic status (SES) patient. Some of the intervention examples included implementing stricter air quality regulations and reducing traffic emissions, expanding green spaces and urban tree cover, improving housing standards such as ventilation improvements and better air filtration, and funding community health programs and environmental monitoring. During the MAPS "Social Determinants of Health and Health Advocacy" lecture, students learn about the "Atrium Health Community Resources Hub." This collection of resources connects users with help in various categories, including food, housing, diapers, medical supplies, transit, health education, financial assistance, daycare, education, work, and legal services. Students are encouraged to integrate these resources into their third-year clinical rotations in order to help advocate for their patients both in and outside of healthcare.* *Charlotte Campus:* *Public health interventions pertaining to planetary health and sustainability are discussed during the MAPS longitudinal course as they pertain to the case-based learning problems discussed.*	

Section Total (41 out of 75)	**54.67%**

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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: The Occupational and Environmental Health Research Program offered through the Department of Family and Community Medicine at WFUSM researches projects focused on farmworkers, poultry workers, and work and family issues. The department website details multiple past and ongoing projects related to environmental health. An assistant professor in the department worked on the Preventing Agricultural Chemical Exposure among North Carolina Farmworkers (PACE3) study investigating the effect of pesticide exposure on farmworkers in NC. *At the WFUSM MARCH, researchers investigate topics related to health justice that overlap with themes of environmental justice.* *WFU also houses The Sabin Center for Environment and Sustainability, which supports research for undergraduate faculty members and graduate students. The Center was founded in 2010 with the mission of "us[ing] the power of the university to catalyze a global community of innovators, educators, and advocates to solve the essential environmental challenges of our time," focusing on sustainability efforts both domestically and globally. This center conducts research in four domains: biodiversity and ecosystem services, innovative technologies, renewable energy, and policy, enterprise & markets. They have partnered with numerous organizations in order to advance their goals including the World Wide Fund for Nature (WWF), the Amazon Aid Foundation, and the United Nations Development Programme. The Center has faculty who manage or contribute to these projects.*	

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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
Score explanation: The Sabin Center for Environment and Sustainability at WFU is a dedicated, endowed university institute whose core mission is to address global sustainability challenges, including climate change and biodiversity loss, which are the fundamental drivers of human health impacts in the planetary health field. The Center is explicitly interdisciplinary, bringing together over 100 faculty and fellows from across the entire university - including Law, Business, Arts and Sciences - to work on solutions. The Sabin Center functions as the dedicated, interdisciplinary hub for planetary health research at WFU. *Additionally, WFU's Office of Sustainability was founded in 2009 and aims to advance planetary health education at the WFU community level and beyond through interdisciplinary planetary health research. The website further details the team of Office of Sustainability researchers and staff.*	

2.3. Is there a process by which communities disproportionately impacted by climate change and environmental injustice give input or make decisions about the research agenda at your institution?	
Yes, there is a process in which community members impacted by climate and environmental injustice have **decision-making power** in the climate + environmental research agenda. (3 points)	
Yes, there is a process in which community members impacted by climate and environmental injustice **advise** the climate + environmental research agenda. (2 points)	
No, but there are **current efforts** to establish a process for community members to advise or make decisions on the research agenda. (1 point)	
There is **no** process, and **no** efforts to create such a process. (0 points)	
Score Assigned:	1
Score explanation: While there are community advisory boards aimed at enriching research agendas at WFUSM, none are specifically aimed at addressing climate change and environmental	

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justice. However, there are plans to revisit and prioritize the development of a board with this agenda this year.

2.4. Does your institution have a planetary health website that centralises ongoing and past research related to health and the environment?	
There is an **easy-to-use, adequately comprehensive** website that **centralises** various campus resources related to health and the environment including all of the following: upcoming events, leaders in planetary health at your institution, and relevant funding opportunities. (3 points)	
There is a website that **attempts to centralise** various campus resources related to health and the environment, but it is hard-to-use, not updated, or not adequately comprehensive. (2 points)	
The **institution** has an **Office of Sustainability website** that includes **some** resources related to health and the environment. (1 point)	
There is **no** website. (0 points)	
Score Assigned:	2

Score explanation: WFU does have a website for the Office of Sustainability. This site is a great resource for upcoming events, campus initiatives, and mentions the importance of health and well-being. This website has a "Plans & Studies" page that centralizes numerous ongoing research projects and an "Article and Blog Archive" page that focuses on past projects. However, it is focused primarily on undergraduate campus operations, involvement, and environmental studies, and it does not serve as a research hub centralizing the specific work of WFUSM faculty.

There is also a website for the Sabin Center for Environment and Sustainability and WFU has a website for their Environmental and Epistemic Justice Initiative. Both websites detail their research work, both ongoing and past, including highlights on programming, faculty, and fellows that focus on environmental justice and community health concerns. However, these websites do not provide links to the researchers' bios to read more about their work or course offering and also do not provide information on institutional resources related to health and the environment.

Environment and Sustainability Visioning describes how an interdisciplinary taskforce is working to assess Wake Forest's current strengths in environment and sustainability, identify opportunities for interdisciplinary collaboration across disciplines university-wide, and "detailing a plan for pursuing funding, partnerships, and academic growth." The task force includes WFUSM's Senior Associate Dean of Planetary Health, the Vice President of the Office of Sustainability, along with directors of the Sabin Center. Though this interdisciplinary initiative is promising, the website itself does not centralize any past or present research. Atrium Health, the hospital system affiliated with WFUSM, has a page on their website that discusses their approach to environmental sustainability, their commitments and goals, and the awards they have previously won in regard to these accolades.

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

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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

Score explanation: The Sabin Center for Environment and Sustainability hosted a conference on November 13, 2025 entitled "Sustainable, Just, & Abundantly Wild" with the CEO of National Geographic Society as the keynote speaker. The conference aimed to answer the questions, "What systems and relationships must we prioritize to ensure just and sustainable outcomes for people and place?", "How can leading-edge technologies address age-old problems?", and "How can we integrate scholarship, enterprise, policy, and community to drive meaningful change?"

The Sabin Center also recently hosted a symposium, titled "Advancing Stewardship: Innovative Approaches for a Thriving Planet," which took place from October 9-11, 2024, on the WFU Reynolda Campus. The purpose behind gathering these planetary health experts was clearly stated by the Executive Director of the Sabin Center: "Our intent was to bring together world-class thought leaders to disseminate innovative strategies for protecting and restoring areas vital to the world's ecological health." Further, WFU hosted an Environmental and Epistemic Justice summit in April of 2024. This was a joint project between the Sabin Center, the African American Studies Department, and the School of Divinity.

Charlotte Campus:
WFU hosted the 10th Annual John W. Hatch Lecture and Symposium entitled "Faith, Health, and the Environment: The Demands of Justice," on December 2, 2025 at the WFUSM campus in Charlotte, NC. The goal of the conference was to "examine the interrelated dynamics of faith, health, policy, and the environment as critical domains for advancing justice and the common good."

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:	1

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Score explanation: WFU's hospital system, Atrium Health Wake Forest Baptist (part of Advocate Health), is a member of Practice Greenhealth, which is the nation's leading membership and networking organization for health care institutions committed to implementing sustainable practices. The parent system, Advocate Health, was recognized by Practice Greenhealth with the "System for Change Award" in May 2024 (and for the 16th consecutive year), confirming that Atrium Health Wake Forest Baptist participates in this national ESH/ESV network. Practice Greenhealth's mission directly aligns with promoting sustainable healthcare/vetcare by focusing on areas like energy efficiency, waste reduction, chemical safety, and climate-smart health systems.

Additionally, Atrium Health reports that they are an Environmental Protection Agency (EPA) Energy Star Partner of the Year. Atrium Health has also been designated as a Tree Campus Healthcare Institution by the Arbor Day Foundation, which is a "national recognition program that celebrates healthcare facilities using trees as a tool for community wellness." In recent years, Atrium Health has also received numerous certifications and awards for their environmental efforts including Energy Star Certification, American Society for Health Care Engineering (ASHE) Energy to Care Awards, ASHE Energy Champion, Smart Energy Decisions Innovation Award, and Tree Campus Healthcare Facility. In June 2022, Atrium Health signed the Health Care Sector Pledge which affirms Atrium's efforts to reduce emission by 50% by 2030 and to achieve net zero emissions by 2050.

Section Total (14 out of 17)	**82.35%**

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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
Score explanation: *Winston-Salem Campus:* *WFUSM's Medical Students for a Sustainable Future (MS4SF) chapter provides multiple unique opportunities to engage with community partnerships, including Winston-Salem's "Keep Winston-Salem Beautiful" program, and previously volunteering with Threshold Farm that increased the community's access to sustainably raised foods. The Service Learning Scholars (SLS) program at WFUSM also encourages students to participate with other sustainable gardening groups. Two of these groups are Helping Our People Eat (H.O.P.E.), which cooks and packages meal for delivery in neighborhoods identified to have increased food insecurity and Crossnore's Miracle Grounds, which is focused on teaching children living at the cottages on site about sustainable gardening practices to encourage healing through nature therapy. These opportunities occur on a recurring basis throughout the year, represent established institutional relationships rather than one-time volunteer experiences, and reflect a meaningful commitment to community environmental engagement.* *Charlotte Campus:* *The Charlotte campus similarly demonstrates sustained environmental community engagement through established volunteer partnerships. Students regularly participate with Keep Charlotte Beautiful, TreesCharlotte, Friendship Gardens, Davidson Community Garden, Zen Community Garden, and Threshold Farm through MS4SF and SLS programming. As with Winston-Salem, these relationships are ongoing and accessible to students rather than single-event opportunities.*	

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3.2. Does your institution offer community-facing courses or events regarding planetary health?	
The **institution** offers community-facing courses or events at least once every year. (3 points)	
The **institution** offers courses or events open to the community at least once per year, but they are not primarily created for a community audience. (2 points)	
The **institution** has promoted community-facing courses or events, but was not involved in planning those courses or events. (1 point)	
The **institution** has not offered such community-facing courses or events. (0 points)	
Score Assigned:	3
Score explanation: WFU curates "Earth Talks," which are student-led educational talks on various topics related to planetary health. Although they are primarily promoted to students, they are available to be watched through the WFU website. WFU's Speaker Series is open to the public and features nationally renowned experts in climate health. The Andrew Sabin Family Center for Environment and Sustainability hosted its inaugural Advancing Stewardship conference last year, bringing together the broader public and practitioners. The conference included students, citizens, community leaders, and other professionals that are meant to educate the audience about the complexity of environmental changes and the importance of uniting diverse perspectives in order to develop solutions. This year marks an important addition to these educational lectures with WFU's 10th Annual John W. Hatch Lecture and Symposium entitled "Faith, Health, and the Environment: The Demands of Justice," on December 2, 2025 at the WFUSM campus in Charlotte, NC. Additionally, the medical school has recently begun providing educational lectures about climate advocacy and sustainability through MS4SF, but these are only available to students. Overall, some of these events are not consistently advertised to the public, which limits consistency.	

3.3. Does your institution have regular coverage of issues related to planetary health and/or sustainable healthcare in university update communications?	
Yes, all students **regularly** receive communication updates dedicated to planetary health and/or sustainable healthcare. (2 points)	
Yes, planetary health and/or sustainable healthcare topics are regularly included in communication updates to **some courses**. (1 point)	
Students **do not** receive communications about planetary health or sustainable healthcare. (0 points)	
Score Assigned:	0
Score explanation: WFU provides a newsletter through their Office of Sustainability which provides announcements, events, and volunteer opportunities to anyone who signs up for it through their website, but it is not actively promoted to students or the community. There is also a WFUSM sustainability newsletter, but this is also opt-in only and is published inconsistently.	

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3.4. Does the institution or main affiliated hospital trust engage in professional education activities targeting individuals post-graduation with the aim of ensuring their knowledge and skills in planetary health and sustainable healthcare remain up to date during their professional career?	
Yes, the **institution** or **main affiliated hospital trust** offers multiple in-person or online courses relating to planetary health and/or sustainable healthcare for post-graduate providers, including at least one with a primary focus of planetary health. (2 points)	
Yes, the **institution** or **main affiliated hospital trust** offers one course relating to planetary health and/or sustainable healthcare for post-graduate providers. (1 point)	
There are **no** such accessible courses for post-graduate providers. (0 points)	
Score Assigned:	0
Score explanation: Through Northwest Area Health Education Centers (AHEC) courses, "Turning up the Heat: Climate, Communities, and Health Equity" and "Intro to Climate, Health, and Equity," both WFUSM campuses are offered intermittent workshops and seminars on related topics. These opportunities demonstrate meaningful professional education infrastructure, but they are variable in format, transient in availability, and not clearly integrated into required professional development or competency-based pathways. Learners and staff must actively search through large catalogues in AHEC and HealthStream to identify relevant offerings, making these activities generally inaccessible.	

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:	1
Score explanation: Advocate Health, the health system that WFUSM operates under, has a patient and family resources section with information about the relationship between environmental triggers and asthma and environmental allergies accessible through their website. Providers also have the ability to "assign" patients educational material through HealthStream, which include various environmentally related resources. However, these cannot be accessed without login credentials as a physician and are not readily available to patients.	

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

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Yes, the **institution** or **all affiliated hospitals** have accessible educational materials for patients. (2 points)	
Some affiliated hospitals have accessible educational materials for patients. (1 point)	
No affiliated hospitals have accessible educational materials for patients. (0 points)	
Score Assigned:	0
Score explanation: At this time, WFUSM does not provide patient-directed educational materials that explicitly address the connection between climate change and health outcomes. Atrium Health offers standard public patient education resources, including materials on asthma triggers, air quality, and environmental allergy management, but these are not framed in the context of climate-driven risk amplification (e.g., worsening heat events, wildfire smoke, or vector-borne disease trends). There are currently no printed handouts, waiting-room resources, or clinic-integrated counseling materials available that educate patients about how climate change may affect health or outline mitigation strategies. No evidence was found of climate-and-health patient curricula, workshops, or electronic medical record-linked patient education prompts.	

Section Total (7 out of 14)	**50.00%**

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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 institution offer support for students interested in enacting a sustainability initiative/QI project?	
Yes, the **institution** *either* offers grants for students to enact sustainability initiatives/QI projects *or* 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:	2
Score explanation: WFUSM does not offer dedicated grants or integrate sustainability/QI projects, but students can apply for general grant opportunities as they arise and can frame their project proposal around sustainability. Students can also form sustainability-focused organizations and receive $1000 institutional funding for recognized student groups. Oversight from Student Affairs and the Office of Educational Services provides structure and support for these initiatives. While opportunities exist for student-led projects, there is no formal funding stream or curricular requirement. *The Sabin Center awards small grants to groups of faculty and student groups working on sustainability-related projects. Financial support includes seed grants (typically between $1,000–$4,000) for research, scholarship, or collaborative efforts addressing environment/sustainability issues. In addition, the Sabin Center also offers student fellowships/summer fellowships for internships or research related to environment/sustainability.*	

4.2. Does your institution 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)

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There are **no opportunities** for students to engage in planetary health/sustainable healthcare research. (0 points)	
Score Assigned:	1
Score explanation: WFUSM does offer research opportunities related to planetary health and sustainable healthcare, but only through broader programs such as the Global Health Scholarly Concentration, Wilderness Medicine (RAW), and the SLS Program. Students can also engage with the Medical Student Research Program (MSRP), a paid summer research opportunity, where they can select a faculty member and work on a sustainability project. These programs allow students to pursue mentored research and projects addressing environmental determinants of health, sustainability, and health equity if they so choose, though there is no dedicated planetary health fellowship. For the 2026 summer, there are two planetary health-related MSRP projects available. *In addition, the Charlotte campus has individual mentors and a sustainability interest group available for students to perform research related to planetary health topics. However, students must facilitate these connections on their own, without a specific program, and the research topics covered by these individual mentors are narrow and specialty confined. Examples of research topics that medical students worked on include reducing nitric oxide waste in hospitals by switching from a pipeline system to using portable tanks.*	

4.3. Does the institution have a webpage where students can find specific information related to planetary health and/or sustainable healthcare/vetcare activities and mentors within the institution? For example, projects achieved, current initiatives underway at the medical school and/or contact of information of potential mentors.	
The institution has a webpage with specific information related to planetary health or sustainable healthcare/vetcare that includes up-to-date information on relevant initiatives and contact information of potential mentors. (2 points)	
There is an institution webpage that features some information on projects and mentors within planetary health and sustainable healthcare within the institution, but it lacks key information. (1 point)	
There is **no institution** specific webpage for locating planetary health and/or sustainable healthcare projects or mentors. (0 points)	
Score Assigned:	1
Score explanation: The institution has a page through the WFU Sabin Center for Environment and Sustainability and the Office of Sustainability webpage. Both pages highlight different volunteer opportunities, events, and highlights current projects, but they do not list specific opportunities for mentorship/student involvement. None of the information on this page reflects work being done at WFUSM, either.	

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?

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Yes, there is a student organisation **with faculty support** at my institution dedicated to planetary health or sustainability in healthcare. (2 points)	
Yes, there is a student organisation at my institution dedicated to planetary health or sustainability in healthcare but it **lacks faculty support.** (1 point)	
No, there is **not** a student organisation at my institution dedicated to planetary health or sustainability in healthcare. (0 points)	
Score Assigned:	2
Score explanation: WFUSM has a chapter of MS4SF that was founded in 2023 and has faculty support dedicated to planetary health or sustainability in healthcare. It expanded to include the Charlotte campus in 2024.	

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:	1
Score explanation: There is a student lead on the WFUSM Center for Planetary Health Stand-Up Committee and the Student Planetary Health Curriculum Integration Team. These groups are an integral part of developing WFUSM's position in planetary health leadership and advocacy through education, research, and service.	

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.	1
Panels, speaker series, or similar events related to planetary health that have students as an intended audience.	1
Events in which students learn directly from members of a local environmental justice community about the climate and environmental challenges they face, and how health professionals can partner with their community to address these exposures and impacts.	0
Cultural arts events, installations or performances related to planetary health that have students as an intended audience.	0

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Local volunteer opportunities related to building community resilience to anthropogenic environmental impacts.	1
Wilderness or outdoors programs (e.g., that organise hiking, backpacking, kayaking, or other outings for students)	1

Score explanation:
RAW Medicine Scholarly Concentration spans both campuses and organizes events that include hiking, backpacking, kayaking, and other outings. They focus on teaching medical techniques to treat health emergencies in situations with limited resources.

Winston-Salem Campus:
WFUSM provides opportunities for students to volunteer with various local gardens and farms, such as Goler Garden and Crossnore Communities for Children Miracle Grounds Farm. There have been student-specific planetary health related educational events since September 2024, covering planetary health, advocacy and policy within healthcare, and sustainability discussion with various speakers, including physicians, PhDs, and resident physicians. These events are hosted by institutional or student-led groups.
There are currently no specific events where students have learned from members of a local environmental justice community and their challenges, or cultural art events or installations related to planetary health.
The southeast region of Advocate Health held its first Climate Action Corps event at the U.S. National Whitewater Center in Charlotte, NC. This event was open to medical students, residents, physicians, and other healthcare providers to learn more about the goals of PH, connect with nature, and develop ideas for projects to implement at their respective practices.
The Office of Sustainability hosts an Arbor Day Celebration and Cookout which involves tree planting and forest clean-up. Community Clean-Up, a student-led service learning program, also hosts regular park clean-ups in partnership with Keep Winston-Salem Beautiful, a city-funded program.

Charlotte Campus:
Similar to the Winston-Salem campus, the Charlotte campus provides opportunities for students to participate in agriculture/sustain food efforts. These organizations include Zen Garden (provide fresh food to community members in need) and Davidson Community Garden (learn gardening and provide produce to the community).
The WFUSM MS4SF Charlotte section hosts specific days for picking up trash in parks and other nature locations.
The SLS program has provided opportunities for students to engage with local community gardens. Students are also working to create an Outing Club to organize more regular outdoor activities for students.

Section Total (11 out of 15)	**73.33%**

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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 institution 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
Score explanation: WFU has an Office of Sustainability with six dedicated staff members and student interns and is accessible to WFUSM students. There is a staff member on both campuses who manages sustainable operations at the hospital, although this is not their sole role.	

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: The WFUSM Winston-Salem Bowman Gray Center for Medical Education has a LEED platinum award (2017), indicating greenhouse gas emissions are less than .004 metric tons of CO2 per square foot. Atrium Health, the WFUSM hospital system, has committed to achieve	

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carbon neutrality in 2025, reduce emissions by 50% by 2030, and achieve net-zero emissions by 2050, having signed the Health Care Sector Pledge. The new Charlotte campus of WFUSM, the Pearl, is the nation's first carbon-zero medical school and is also LEED certified. Upon its opening in 2025, it already achieves net-zero carbon standards. While WFUSM's healthcare system has pledged carbon neutrality goals, the medical school nor WFU as an institution has a specific plan to reduce carbon emissions and achieve neutrality.

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:	2
Score explanation: WFU joined a power purchase agreement with eight other institutions announced in 2024 that will establish a large-scale solar farm. WFU agreed to pay for enough energy from this solar farm to offset 100% of the school's energy use for the next 20 years. Construction of the solar farm began early 2025 and will be completed by the end of 2026. Specifics about the percentage of renewable energy use across the institution are not published in the meantime. The Charlotte campus building, the Pearl, uses LEED certified electric energy, and purchases reusable off-site energy to offset any non-renewable energy used. There are no public reports detailing energy use since publication of this goal. Our scoring is an estimate of current progress towards renewable energy use for both campuses.	

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)

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Score Assigned:	2

Score explanation:
Winston-Salem Campus:
The Winston-Salem medical campus, opened in 2016, is a repurposed building from a former tobacco manufacturing plant, along with two other buildings. Two of the buildings received LEED platinum certification and one received LEED gold certification. There are also plans to increase the Innovative Quarter into more community integrated and multi-purpose mixed-use spacing. All new building plans are designed to achieve a minimum LEED-silver certification. WFU is committed to retrofitting old buildings where possible as opposed to new construction, although this does not include WFUSM-affiliated buildings. WFU currently has 12 LEED-certified buildings.

Charlotte Campus:
The new Charlotte campus building, "the Pearl," includes many open spaces for community gathering, mixed-use space (residential and commercial space), and was built with regional materials. It is LEED certified and carbon-zero.

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:
Winston-Salem Campus:
WFUSM offers van services that provide free transportation for patients, families, students, visitors and employees. There are six routes that cover 12 medical center facilities. There is a shuttle service that utilizes electric vehicles for student transportation, a bike borrowing program through WFU, and the hospital also offers shuttle services upon request as well as on scheduled, established routes, though not largely advertised. There is also apartment and housing in walking distance for students who chose to live close by and walk.

Charlotte Campus:
The Charlotte campus for WFUSM is right by the Sugar Creek Greenway, making it accessible by bike or foot from some parts of Charlotte. It is accessible via the Blue Line train system, and is accessible via the Charlotte Area Transit System (CATS) bus system. The campus offers bike parking and electric car charging stations. There is a bus service from the Carolinas Medical Center (CMC) hospital to the Pearl innovative district 24/7. There is also apartment and housing in walking distance for students who chose to live close by and walk.

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5.6. Does your institution have an organics recycling program (compost) and a conventional recycling program (aluminium/paper/plastic/glass)?	
Yes, the institution has **both** compost **and** recycling programs accessible to students and faculty. (2 points)	
The institution has **either** recycling **or** compost programs accessible to students and faculty, but not both. (1 point)	
There is **no** compost or recycling program at the institution. (0 points)	
Score Assigned:	1
Score explanation: Both the Winston-Salem and Charlotte campuses offer recycling but not composting in its educational building.	

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 a**dequate s**ustainability 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:	2
Score explanation: Per Student Affairs, WFU works to source locally when possible for food, reduce meat, and track plant based options, and do not offer plastic water bottles at school-hosted events. Campus dining group sources say at least 30% of food is sourced from third-party verified sustainable sources. *The hospital has a goal of 60% waste diversion in their cafeteria, re-introducing washable plates and silverware, and selling local produce.* *The Winston-Salem and Charlotte medical school campuses do not have specific criteria but are actively engaged in efforts to make sustainable decisions regarding food and beverage selections. Recent changes include: increased efforts to source food from local vendors when possible, the promotion of "CoolFoods," an organization that researches and certifies low carbon food choices for organizations that serve food, tracking of plant-based food options, stocking student areas in the medical school and hospital with aluminum water cans to reduce plastic, and increased utilization of compostable paper products and utensils.*	

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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:	0
Score explanation: Per Student Affairs, the medical school keeps sustainability in mind when making supply chain decisions and is interested in further pursuing a more sustainable supply chain. However, based on the information we have access to, there are no sustainability requirements for supply procurement.	

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: Per Student Affairs, if food is bought through the school dining, the food would follow the 'standards' for purchasing food and products, though what the standards are are unclear, and food is not mandated to be acquired through this means. There are no published criteria for sustainability of hosted events at the medical school campuses. Overall, there are no published criteria for sustainability of hosted events at medical school campuses. The institution applies their own sustainability guidelines specified above when providing food or supplies but does not require, recommend, or incentivize specific purchasing if they are not directly involved in the process.	

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

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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:	1
Score explanation: *Winston-Salem Campus: While WFU and WFUSM do not provide guidelines, many lab directors themselves encourage sustainable use in lab spaces to make them more environmentally friendly. The environmental health and safety office has specific policies for laboratory waste and bioengineering controls in compliance with guidelines from the EPA.* *Charlotte Campus:* *This campus uses plastinated donors in the anatomy lab in lieu of wet cadavers, which can be reused for decades and does not require disposal methods.*	

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
Score explanation: WFU does not disclose its full endowment portfolio. No statement has been made about divestment from fossil-fuel companies.	

Section Total (14 out of 32)	**43.75%**

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Grading

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

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

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

Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	(41/75) x 100 = 54.67%	C
Interdisciplinary Research (17.5%)	(14/17) x 100 = 82.35%	A-
Community Outreach and Advocacy (17.5%)	(7/14) x 100 = 50.00%	C
Support for Student-led Planetary Health Initiatives (17.5%)	(11/15) x 100 = 73.33%	B
Campus Sustainability (17.5%)	(14/32) x 100 = 43.75%	C-
Institutional Grade	**(Ax0.3 + Bx0.175 + Cx0.175 + Dx0.175 + Ex0.175) = 60.05%**	**B-**

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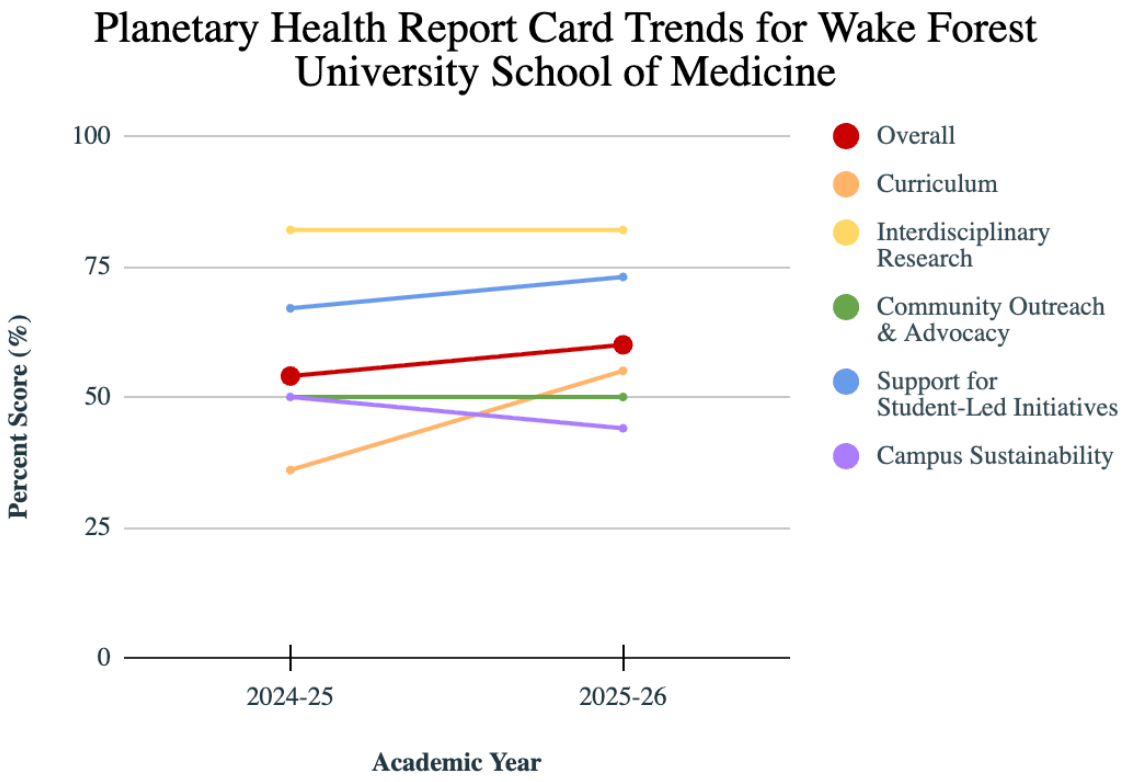
Report Card Trends

Section Overview

This graph demonstrates trends in overall and section grades for the years in which Wake Forest University School of Medicine has participated in the Planetary Health Report Card initiative.



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