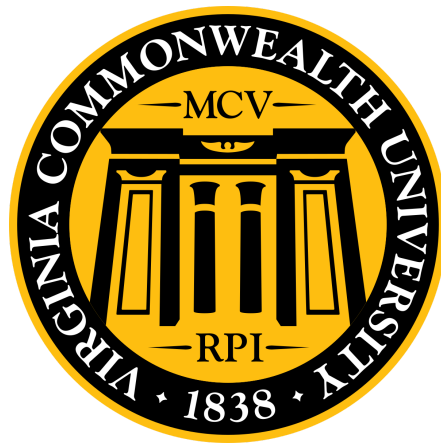




Planetary Health Report Card (Healthcare Administration): *Virginia Commonwealth University*



2024-2025 Contributing Team:

- Students: *Liam Simpson, Ireland Miller*
- Faculty Mentors: *Dr. Carolyn Watts*

*Primary Contact: Liam Simpson, Simpsonwm@vcu.edu

Land acknowledgment: We acknowledge that our university resides on the ancestral homelands of the Powhatan people, including the Pamukey, Mattaponi, and Chickahominy

Summary of Findings

Overall Grade	C
Curriculum	B
• Strengths: • Comprehensive Coverage: The curriculum effectively addresses the impact of planetary health and climate change on health system operations, emergency preparedness, and finances through dedicated courses like HADM 630 Sustainability Health and Healthcare and HADM 609 Population Health. • Elective Options: Two elective courses are offered that engage students in Education for Sustainable Healthcare and Planetary Health. They are HADM 630 Sustainability Health and Healthcare and HADM 631 Applications Sustainability Health and Healthcare • Focus on Vulnerable Populations: The curriculum recognizes the disproportionate impacts of climate change on marginalized communities and emphasizes the importance of Indigenous knowledge. • Areas Lacking: • Integration Depth: While planetary health topics are included, the overall integration into the core curriculum could be improved to ensure these themes are consistently emphasized throughout the program. • Faculty Oversight: Although there is some faculty involvement, more dedicated oversight could enhance the implementation and coordination of planetary health initiatives. • Recommendations: • Enhance Integration of Planetary Health: Develop a structured framework to ensure that planetary health principles are integrated more consistently across all core courses, possibly through interdisciplinary modules or workshops. • Increase Faculty Engagement: Assign a dedicated faculty member or committee to oversee the ongoing incorporation of sustainable healthcare themes, facilitating collaboration among different departments and ensuring regular curriculum updates.	
Interdisciplinary Research	C
• The institution has some faculty engaged in planetary health research but lacks a dedicated department or effective community engagement processes. Additionally, there is no comprehensive planetary health website, recent conferences, or membership in relevant organizations. The institution has just established a new School of Life Sciences and Sustainability. This interdisciplinary school will coordinate institutional curricular and research activities in the sphere of sustainability. • Recommendations: • Monitor and coordinate with the new School of Life Sciences and Sustainability. Enhancing the usability of the sustainability website and hosting relevant conferences could also improve engagement and visibility.	
Community Outreach and Advocacy	D–

- VCU's engagement in planetary health is evident through its Office of Sustainability's partnerships and community-facing events, although the Department of Health Administration itself is not involved in these initiatives. There is a lack of communication regarding planetary health in regular updates to students, and no professional education courses for post-graduate providers exist in this area. While some resources are available for patients at the VCU Medical Center, they are underutilized and not widely accessible across affiliated hospitals.

Recommendations:

- Increase the Department's involvement in existing community partnerships and events to enhance engagement in planetary health initiatives.
- Develop and integrate communication strategies to include regular updates on planetary health topics for students and staff.
- Establish professional education courses targeting post-graduate providers on planetary health and sustainable healthcare to ensure continuous learning and awareness.

Support for Student-Led Initiatives

C–

- The institution currently lacks support for student-led sustainability initiatives, with no funding or structured opportunities available. While there are some research infrastructure and co-curricular programs, these require significant student initiative and are not well integrated. A student organization exists but lacks faculty support, and no medical students are currently representing sustainability interests in decision-making bodies.
- **Recommendations:**
- **Establish Funding Opportunities:** Create grants specifically for student-led sustainability initiatives to encourage participation and innovation.
- **Develop a Centralized Resource Hub:** Build a dedicated webpage that consolidates information on sustainability projects, mentors, and available research opportunities.
- **Enhance Student Representation:** Encourage and support the appointment of students to sustainability committees to advocate for initiatives and curriculum reform.

Campus Sustainability

D+

- Virginia Commonwealth University has an Office of Sustainability with dedicated staff, but its overall sustainability efforts are hampered by inadequate plans for carbon neutrality, minimal renewable energy use, and a lack of sustainable food and procurement guidelines. While there are some initiatives, such as a Green Labs Program, significant gaps remain in composting, event sustainability, and transportation options for students. Additionally, the institution has not effectively addressed fossil fuel investments, despite student advocacy for divestment.
- **Recommendations**
- **Develop a Comprehensive Carbon Neutrality Plan:** Create a clear and actionable plan to achieve carbon neutrality by 2030, including specific measures for the medical school and regular progress updates.
- **Implement Sustainability Guidelines for Food and Procurement:** Establish and enforce sustainability criteria for food services and supply procurement to encourage local sourcing, reduced meat options, and

environmentally friendly materials.

- **Enhance Student Transportation Options:** Improve access to environmentally-friendly transportation methods, such as expanding public transit options and promoting carpooling, especially for clinical rotations.

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 medical 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 medical training. It is imperative that we hold our institutions accountable for educating medical 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) medical school campus sustainability.

Healthcare management:

Healthcare management professionals work hard to ensure their organizations keep people healthy. But people need more than just good healthcare. They also need healthy environments. Healthcare managers are critically important collaborators in safeguarding planetary health. Through the choices they make, their organizations can lead by example in transitioning to more sustainable practices and advocating for environmental health in the communities they serve.

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 medical school 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 eHealthcare:** 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.
- **Healthcare Administration Department vs. Institution:** When “Department” is specified in the report card, this only refers to curriculum and resources offered by the Department of Health Administration 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 healthcare management students, no matter where in the institution the resource comes from or if it is specifically targeted for medical students, can meet this metric.

- **Environmental history (Metric #19 in Curriculum Section):** This is a series of questions students are taught to ask during medical encounters that elicit 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 life course, 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 medical student can opt to take part in but is not a requirement in the core curriculum. Generally, these elective courses take place in the preclinical curriculum but vary by school.
- **Core Curriculum:** This refers to taught material that is delivered to the entire cohort of students in one year.
- **Clerkship / Outreach:** This is a term used in the USA to refer to placements that medical students go on e.g. Pediatrics, General medicine, Psychiatry. In the UK these are referred to as rotations, outreach or placements. This is a relatively short (approximately 4-8 weeks) period of study and patient-centred clinical experience that takes place as part of the undergraduate programme.
- **Clinical rotation:** This is a term used to refer to placements that students go on (e.g., ophthalmology, surgery, cardiology).
- **Physiotherapy vs Physical Therapy:** For the purposes of this report card these terms are considered interchangeable. However, physiotherapy will be used primarily.
- **Community organisations:** For most institutions, there are existing groups that are not directly affiliated with the university and exist as a product of what the community the institution exists in cares about or needs. These specific community organisations relevant to this report include those that are focused around some aspect of climate and health preservation. These community organisations can include but are not limited to local mutual aid initiatives, underserved-resource distribution groups, clean-up and nature conservation groups, community gardeners, and other environmental-related organisations. If your institution does not have access to local volunteerships with community groups, please report any community organisations your institution or school has collaborated with.
- **Climate justice:** The idea that certain population groups and geographical locations which are disproportionately more impacted by climate change are already economically and socially disadvantaged. This double vulnerability sits alongside pre-existing social justice concerns and should therefore shift policy and practice to mitigate the inequitable effects of the climate crisis.

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

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.

Completed in 2022 a Literature Review by Metric is available for the 2022 medicine report card metrics. We are in the process of updating this review and making it more applicable to all the disciplines. However, the review serves as a rough collection of references for further learning and a resource for those advocating for increased planetary health engagement at their institutions.

Planetary Health Curriculum

Section Overview: *This section evaluates the integration of relevant planetary health topics into the health professional school curriculum. Today's medical students will be on the frontlines of tackling the health effects of climate and other environmental changes. Therefore, it is critical that medical 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.*

Healthcare administration is a highly interdisciplinary industry with core areas such as operations, strategy, finances, supply chain, and infrastructure. Its execution within a health system has immediate and long-term effects on quality of care and patient outcomes. As the next generation of healthcare leaders, healthcare administration students will ultimately be significant sources of influence for sustainability and climate change initiatives within their health systems. Therefore, a curriculum that is well-versed in planetary health and sustainability is essential for preparing students for the unique challenges of managing hospitals facing the impact of climate change and creating health systems with minimal planetary harm.

Curriculum: Planetary Health

1.1 Does your Master's curriculum address the impact of planetary health and climate change on health system operations, finances, service lines, emergency preparedness*, or any other element of a health system?

*Public health emergency preparedness (PHEP) is the capability of the public health and health care systems, communities, and individuals to prevent, protect against, quickly respond to, and recover from health emergencies, particularly those whose scale, timing, or unpredictability threatens to overwhelm routine capabilities.

Reference: Nelson C, Lurie N, Wasserman J, Zakowski S. Conceptualizing and defining public health emergency preparedness. Am J Public Health. 2007 Apr;97 Suppl 1(Suppl 1):S9-11. doi: 10.2105/AJPH.2007.114496. Epub 2007 Apr 5. PMID: 17413078; PMCID: PMC1854988.

This topic was **fully addressed** by the **core** curriculum. (2 points)

This topic was **partially addressed** by the **core** curriculum. (1 points)

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

Score Assigned:

2

Score explanation: The elective course, HADM 630 Sustainability, and the core curriculum course, HADM 609 Population Health, comprehensively address the impact of planetary health and climate change on health system operations, finances, service lines, emergency preparedness, and other key elements of a health system. The Department has created a four course Graduate Certificate in Sustainability, Health, and Healthcare. The Graduate Certificate is open to all graduate students at the institution.

1.2 Did your Master's curriculum offer elective courses (student-selected modules) to engage

students in Education for Sustainable Healthcare or Planetary Health in the past year?	
Several elective courses were offered to master's students on ESH or planetary health. (2 points)	
Some elective courses were offered to master's students on ESH or planetary health. (1 points)	
No elective courses were offered to students (0 points)	
Score Assigned:	2
Score explanation: The master's curriculum offers an elective course HADM 630 Sustainability.	

1.3 Does your Master's curriculum address the impacts of extreme weather events or changing weather patterns on healthcare systems, such as but not limited to severe thunderstorms, storm surges, drought, or excessive heat?	
The Master's curriculum addresses at least two of the above in the core curriculum. (2 points)	
The Master's curriculum addresses at least one or a relative alternative of the above in the core curriculum. (1 point)	
This topic was not covered. (0 points)	
Score Assigned:	2
Score explanation: Yes, all three are addressed in HADM 630 Sustainability course and HADM 609 Population Health.	

1.4 Does your Master's curriculum address the relationships between community health, food and water security, ecosystem health*, and climate change?	
*: the state or condition of an ecosystem in which its dynamic attributes are expressed within the normal ranges of activity relative to its ecological state of development" (van Andel and Aronson, 2006)	
This topic was explored in depth by the core curriculum. (2 points)	
This topic was briefly covered in the core curriculum. (1 point)	
This topic was not covered. (0 points)	
Score Assigned:	2
Score explanation: Yes, it was covered in HADM 630 Sustainability course and HADM 609 Population Health.	

1.5 Does your Master's curriculum address the outsized impact of climate change on

marginalized populations such as those with low socio-economic status, women (including reproductive health), communities of color, indigenous communities, children, homeless populations, and older adults?

This topic was explored **in depth** by the **core** curriculum. (2 points)

This topic was **briefly** covered in the **core** curriculum. (1 point)

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

Score Assigned:

2

Score explanation: Yes, this is covered in HADM 630 Sustainability course and HADM 609 Population Health.

1.6 Does your Master's curriculum address the unequal regional health impacts of climate change globally?

Yes, the **core** curriculum covers the unequal regional health impacts of climate change. (1 point)

No, this topic was **not** covered. (0 points)

Score Assigned:

1

Score explanation: Yes, it is covered in HADM 630 Sustainability course and HADM 609 Population Health.

1.7 Does your Master's curriculum address the environmental and health co-benefits of a plant-forward (plant-based) diet, especially one that is locally sourced?

Yes, the **core** curriculum covers the environmental and health co-benefits of a plant-based diet AND includes the benefits of locally sourced food. (2 points)

Yes, the **core** curriculum covers the environmental and health co-benefits of a plant-based diet but does NOT include the benefits of locally sourced food. . (1 point)

No, this topic was **not** covered. (0 points)

Score Assigned:

0

Score explanation: This was not covered in any course.

1.8 Does your Master's curriculum address the carbon footprint of healthcare systems via Scopes 1 ("Direct emissions from sources owned or controlled by the organization"), 2

(Indirect emissions purchased energy), or 3 (All other indirect emissions including those within the supply chain) per the Greenhouse Gas Protocol?	
Two or more emission scopes were covered in the core curriculum. (2 points)	
Only one emission scope was covered in the core curriculum. (1 point)	
This topic was not covered. (0 points)	
Score Assigned:	2
<i>Score explanation: This was covered in the HADM 630 Sustainability course</i>	

1.9 Does your Master's curriculum introduce strategies to have conversations with physicians or other healthcare providers about the health effects of climate change?	
Yes , the core curriculum covers strategies to have conversations regarding the health effects of climate change. (1 point)	
No , this topic was not covered. (0 points)	
Score Assigned:	1
<i>Score explanation: Yes, this is covered in HADM 682 and 683 Executive Skills.</i>	

1.10 Does your Master's curriculum address important human-caused environmental threats that are relevant to the university's surrounding community?	
Yes , the core curriculum covers important human-caused environmental threats relevant to the institution's surrounding community. (1 point)	
No , this topic was not covered. (0 points)	
Score Assigned:	1
<i>Score explanation: Yes, this is covered in HADM 630 Sustainability course and HADM 609 Population Health.</i>	

1.11 Does your Master's curriculum emphasize the importance of Indigenous knowledge and value systems as essential components of planetary health systems?	
Yes , the core curriculum emphasizes the importance of Indigenous knowledge and value systems. (1 point)	
No , this topic was not covered. (0 points)	

Score Assigned:	1
<i>Score explanation: Yes this was covered in HADM 609 Population Health.</i>	

1.12 Does your Master's curriculum cover these components of sustainable management practice in the core curriculum? (1 point each)	Score
HR: Leveraging environmental sustainability to attract and retain talent (e.g. through employer branding and employee resource groups). (1 point)	1
Facilities: Incorporating environmental sustainability considerations into facilities master planning? (1 point) <i>Examples of facilities master planning: Equipment, access, information technology, systems and processes, sustainability initiatives, and staff</i>	1
Governance: Incorporating environmental sustainability and climate resilience considerations into enterprise risk management? (1 point)	0
Finance: Financing mechanisms for supporting environmental sustainability practices (e.g. green bonds, green revolving funds). (1 point)	0
Leadership & Policy: Organizational advocacy in regional, national, and global healthcare policies (e.g. ATACH/WHO). (1 point)	1
Law: Legal and regulatory frameworks involving measuring and reporting of environmental footprints (e.g. SBTi, TCFD)? (1 point)	0
IT: The environmental footprint associated with information systems / AI? (1 point)	0
Quality: Expectations of emerging accreditation standards associated with measuring, reporting, and reducing emissions. (1 point)	1
Community Health: Integrating climate considerations into community reliance planning. (1 point)	0
<i>Score explanation: Yes, these are covered in HADM 649, Human Resources Management in Health Care, HADM 630 Sustainability course, HADM 609 Population Health, and in HADM 682 and 683 Executive Skills.</i>	

Curriculum: Administrative Support for Planetary Health

1.13 Is your Master's curriculum currently in the process of implementing or improving Education or Sustainable Healthcare (ESH)/planetary health education?

Yes, the curriculum team are in the process of actively including ESH / Planetary Health (2 points)	
No, but this is something that is being considered. (1 point)	
There are no current plans or considerations of including ESH / Planetary Health. (0 points)	
Score Assigned:	2
<i>Score explanation: Yes, faculty has created a sustainability certificate students can graduate with.</i>	

1.14 How well are the aforementioned planetary health/Education or Sustainable Healthcare topics integrated longitudinally into the core curriculum?	
Planetary Health / ESH are very well integrated longitudinally into the curriculum (2 points)	
Planetary Health / ESH are well integrated but there is room for improvement. (1 point)	
Planetary Health / ESH are poorly integrated into the longitudinal curriculum. (0 points)	
Score Assigned:	0
<i>Score explanation: It is is poorly integrated.</i>	

1.15 Does your Master's curriculum assign a faculty member to oversee the incorporation of planetary health and sustainable healthcare as a theme throughout the program?	
Yes, there is an assigned faculty to develop ESH / Planetary Health education. (1 point)	
There is no assigned member of staff. (0 points)	
Score Assigned:	0
<i>Score explanation: We do not have a faculty member dedicated to ESH / Planetary Health education.</i>	

Section Total (22 out of 32)	68.75%
-------------------------------------	---------------

Interdisciplinary Research

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

2.1. Are there researchers engaged in planetary health research and healthcare sustainability research at your <u>institution</u>?	
Yes, there are faculty members at the institution who have a primary research focus in planetary health or sustainable healthcare/vetcare. (3 points)	
Yes, there are individual faculty members at the institution who are conducting research related to planetary health or healthcare sustainability, OR are part of a national/international sustainability working group, but it is not their primary research focus. (2 points)	
There are sustainability researchers at the institution , but not specifically associated with healthcare/vetcare. (1 point)	
No, there are no planetary health and/or sustainability researchers at the institution at this time. (0 points)	
Score Assigned:	2
<i>Score explanation: There are two faculty members within the department of Family Medicine whose research involves assessing the health impacts of urban heat islands and climate change on health disparities in Richmond Virginia.</i>	

2.2. Is there a dedicated department or institute for interdisciplinary planetary health research at your <u>institution</u>?	
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 points)	
There is no dedicated department or institute. (0 points)	
Score Assigned:	0

Score explanation: VCU's Office of Sustainability is dedicated to disseminating information on campus sustainability efforts, connecting students with climate research opportunities, and holding the university accountable to becoming carbon-neutral by 2050. Its influence lies in the undergraduate community far more than in its graduate/health programs. VCU also has a Center for Environmental Studies, which provides academic advising and facilitates research at both the undergraduate and graduate levels.

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 points)

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

Score Assigned:

0

Score explanation: As far as we know, there is no such process by which disproportionately impacted communities provide input to research at VCU SOM.

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: The [VCU Office of Sustainability website](#) provides information about some ongoing projects, opportunities to get involved, and describes ongoing projects and operations at the institution aimed at reducing the carbon footprint. The site is fairly comprehensive but

somewhat difficult to navigate and does not provide information for funding opportunities or contact information for leadership.

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

Yes, the **institution** has hosted at least one conference or symposium on topics related to planetary health in the past year. (4 points)

Yes, the **institution** has hosted at least one conference or symposium on topics related to sustainable healthcare/vetcare in the past year. (3 points)

Yes, the **institution** has hosted a conference on topics related to planetary health / sustainable healthcare/vetcare in the past three years. (2 points)

The **institution** has not hosted any conferences directly, but they have provided financial support for a local planetary health event. (1 point)

No, the **institution** has not hosted a conference on topics related to planetary health in the past three years. (0 points)

Score Assigned:

4

Score explanation: The Department of Health Administration held a conference with the CEO of The Joint Commission where Dr. Perlin spoke about sustainability in healthcare.

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 points)

No, the institution is **not** a member of such an organisation. (0 points)

Score Assigned:

0

Score explanation: VCU SOM was previously a member of the Global Consortium on Climate and Health Education, however is no longer.

Section Total (8 out of 17)

47.05%

Back to Summary Page [here](#)

Community Outreach and Advocacy

Section Overview: This section evaluates medical school 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 <u>institution</u> partner with community organisations to promote planetary and 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 has participating in community focused events relating to planetary health. (1 point)	
No, there is no such meaningful community partnership. (0 points)	
Score Assigned:	1
Score explanation: VCU's Office of Sustainability <u>partners</u> with numerous community organizations for planetary health projects relating to gardening (Community Food Collaborative, Shalom Farms, Sneed's Nursery), forestry (EnRichmond Tree Lab, Richmond Tree Stewards, Carver Area Civil Improvement League), and transportation (Zipcar, Greater Richmond Transit Company). At this time, the medical school is not involved in these partnerships.	

3.2. Does your <u>institution</u> 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 the medical school was not involved in planning those courses or events. (1 point)	
The institution/medical school have not offered such community-facing courses or events. (0 points)	

Score Assigned:	1
<i>Score explanation: VCU's Office of Sustainability offers community-facing events (Amelia Street School Tree Care, Meadow Planting) around urban forestry. The medical school is not involved in these events.</i>	

3.3. Does your <u>institution</u> have regular coverage of issues related to planetary health and/or sustainable healthcare in university update communications?	
Yes, all students regularly receive communication updates dedicated to planetary health and/or sustainable healthcare. (2 points)	
Yes, planetary health and/or sustainable healthcare topics are regularly included in communication updates to some courses . (1 point)	
Students do not receive communications about planetary health or sustainable healthcare. (0 points)	
Score Assigned:	0
<i>Score explanation: The SOM does not have coverage of planetary health issues in regular communications.</i>	

3.4. Does the <u>institution</u> or <u>main affiliated hospital trust</u> engage in professional education activities targeting individuals post graduation with the aim of ensuring their knowledge and skills in planetary health and sustainable healthcare remain up to date during their professional career?	
Yes, the institution or main affiliated hospital trust offers multiple in-person or online courses relating to planetary health and/or sustainable healthcare for post-graduate providers, including at least one with a primary focus of planetary health. (2 points)	
Yes, the institution or main affiliated hospital trust offers one course relating to planetary health and/or sustainable healthcare for post-graduate provider. (1 point)	
There are no such accessible courses for post-graduate providers. (0 points)	
Score Assigned:	0
<i>Score explanation: There are no such courses or activities.</i>	

3.5. Does your <u>institution</u> or its <u>affiliated teaching hospitals</u> have accessible educational materials for patients about environmental health exposures?	
Yes, the medical school 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
<i>Score explanation: The VCU Medical Center Health & Wellness Library provides educational resources for patients and could help patients find information relating to environmental health exposures. However, the library is quite small and underutilized by the patient population. Additionally, not all affiliated centers have the same access to this resource, as it is located at the VCU Health Main Hospital.</i>	

3.6. Does your <u>institution</u> or its <u>affiliated teaching hospitals</u> have accessible educational materials for patients about the health impacts of climate change?	
Yes, the medical school or <u>all</u> 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
<i>Score explanation: The VCU Health & Wellness Librarians could help patients research information regarding climate change and health impacts, but this resource is not well advertised nor universally accessible.</i>	

Section Total (3 out of 14)	21.42%
------------------------------------	---------------

Back to Summary Page [here](#)

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, **neither** the medical school or the institution offer opportunities or support for sustainability initiatives or QI projects. (0 points)

Score Assigned:

1

Score explanation: Yes, we offer an elective project based course that is apart of the Graduate Certificate and is also open to all Graduate Students at the institution.

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 these out and carry them out in their spare time. (1 point)

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

Score Assigned:

1

Score explanation: [The Dean's Fellowship Research Program](#) promotes students' abilities to connect with faculty and create/find research opportunities. To date, only one project related to planetary health has received funding through the program. Student initiative is required, but the infrastructure to support such research exists. Our student group is focusing efforts on identifying/generating planetary health projects, finding faculty mentors interested in taking on such projects, and compiling this information in advance so that first year students can explore these opportunities when deciding on a summer research project.

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 medical school, 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: While the [VCU Institute for Sustainable Energy and Environment](#) has a website with research mentors, and the School of Medicine has a website with research projects, there is no direct overlap. However, if the medical school had projects and mentors involved in planetary health research, those opportunities would be easily available to students.

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

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

Yes, there is a student organisation at my medical school 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: VCU has a registered branch of Medical Students for a Sustainable Future with faculty support.

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

Yes, there is a student representative that serves on a department or institutional decision-making council/committee. (1 points)	
No, there is no such student representative. (0 points)	
Score Assigned:	0
<i>Score explanation: While there is an opportunity for medical students to serve on the ONE VCU Sustainability Committee, which is focused on enacting the ten-year sustainability plan for VCU as an institution, none currently do.</i>	

4.6. In the past year, has the <u>institution</u> had one or more co-curricular planetary health programs or initiatives in the following categories? (1 point each)	Score
Projects where students are able to gain experience in organic agriculture and sustainable food systems, such as gardens, farms, community supported agriculture (CSA), fishery programs, or urban agriculture projects.	0
Panels, speaker series, or similar events related to planetary health that have students as an intended audience.	1
Events in which students learn directly from members of a local environmental justice community about the climate and environmental challenges they face, and how health professionals can partner with their community to address these exposures and impacts.	0
Cultural arts events, installations or performances related to planetary health that have students as an intended audience.	0
Local volunteer opportunities related to building community resilience to anthropogenic environmental impacts.	0
Wilderness or outdoors programs (e.g., that organise hiking, backpacking, kayaking, or other outings for students)	0
<i>Score explanation: VCU's Office of Sustainability offers volunteer programs in their community gardens, one of which is on the health system campus, to help alleviate urban food insecurity in partnership with a free local medical clinic. VCU's Outdoor Adventure Program offers wilderness and outdoors programs to students, including medical students. Four students from the Department competed in the national case competition that focused entirely on sustainability.</i>	

Section Total (6 out of 15)	40%
------------------------------------	------------

Back to Summary Page [here](#)

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 medical schools, clinics, and hospitals must set the standard for sustainable practices, and show other sectors what is possible when it comes to minimising environmental impact.

5.1. Does your <u>institution</u> have an Office of Sustainability?	
Yes, there is an Office of Sustainability with multiple full-time staff dedicated to campus sustainability. If the Office of Sustainability serves the entire campus, there is at least one designated staff member for sustainability at the hospital. (3 points)	
There is an Office of Sustainability with one or more full-time staff dedicated to campus sustainability, but no specific staff member in charge of hospital sustainability. (2 points)	
There are no salaried sustainability staff , but there is a sustainability task force or committee. (1 point)	
There are no staff members or task force responsible for overseeing campus sustainability. (0 points)	
Score Assigned:	3
Score explanation: Virginia Commonwealth University has an office of sustainability with multiple full-time staff members, and an individual has been appointed to oversee sustainability efforts at VCU Health.	

5.2. How ambitious is your <u>institution's</u> plan to reduce its own carbon footprint?	
The institution has a written and approved plan to achieve carbon neutrality by 2030 (5 points)	
The institution has a written and approved plan to achieve carbon neutrality by 2040 (3 points)	
The institution has a stated goal of carbon neutrality by 2040 but has not created a plan to reach that goal or the plan is inadequate (1 point)	
The institution/medical school does not meet any of the requirements listed above (0 points)	
Score Assigned:	1
Score explanation: VCU's Climate Action Plan states a goal of reducing GHG emissions by 17% by 2025 and 100% by 2050 based on 2008 benchmark levels. There is no concrete description of plans	

to reach these goals, and the plans do not specifically address actions to be taken at the medical school.

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

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

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

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

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

Score Assigned:

0

Score explanation: McGlothlin Medical Education Center, the primary building used for teaching at the VCU School of Medicine, sources <1% of energy needs from renewable energy sources.

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

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

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

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

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

Score Assigned:

2

Score explanation: Constructed in 2009, the McGlothlin Medical Education Center earned 50 points on the LEED rating system, earning it a Silver rating by LEED standards. The older buildings that are part of the medical school have not been retrofitted to be more sustainable.

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:	1
<i>Score explanation: The VCU School of Medicine encourages environmentally-friendly transportation by supplying students with free bus passes for the public transit system in Richmond. There are numerous bike racks available around campus to facilitate the use of alternate means of transportation. That being said, it is difficult for third and fourth year medical students to off-site access clinical locations without a car.</i>	

5.6. Does your <u>institution</u> 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 medical school. (0 points)	
Score Assigned:	1
<i>Score explanation: The medical school has numerous bins for traditional recyclables throughout campus, but there is no compost program accessible to students or faculty. Transparency is lacking around where these recyclables are processed.</i>	

5.7. Does the <u>institution</u> apply sustainability criteria when making decisions about the campus food and beverage selections (e.g. local sourcing, reduced meat, decreased plastic packaging)?	
Yes, the institution has adequate sustainability requirements for food and beverages, including meat-free days or no red-meat, and is engaged in efforts to increase food and beverage sustainability. (3 points)	
There are sustainability guidelines for food and beverages, but they are insufficient or optional . The institution is engaged in efforts to increase food and beverage sustainability. (2 points)	

There are sustainability guidelines for food and beverages, but they are insufficient or optional . The institution is not engaged in efforts to increase food and beverage sustainability. (1 point)	
There are no sustainability guidelines for food and beverages. (0 points)	
Score Assigned:	0
<i>Score explanation: There are no criteria for food and beverage selections made by the medical school.</i>	

5.8. Does the <u>institution</u> apply sustainability criteria when making decisions about supply procurement?	
Yes, the institution has adequate sustainability requirements for supply procurement and is engaged in efforts to increase sustainability of procurement. (3 points)	
There are sustainability guidelines for supply procurement, but they are insufficient or optional . The institution is engaged in efforts to increase sustainability of procurement. (2 points)	
There are sustainability guidelines for supply procurement, but they are insufficient or optional . The institution is not engaged in efforts to increase sustainability of procurement. (1 point)	
There are no sustainability guidelines for supply procurement. (0 points)	
Score Assigned:	1
<i>Score explanation: The VCU Office of Procurement Services “strongly encourages” departments to proactively seek out opportunities to make sustainable business decisions and describes required guidelines for general purchase. However, the guidelines are insufficient and not robustly enforced. The medical school is not actively engaged in efforts to improve the sustainability of resource procurement.</i>	

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
<i>Score explanation: There are no sustainability requirements or guidelines for events hosted at the medical school.</i>	

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

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

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

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

Score Assigned:

2

Score explanation: The newly implemented [Green Labs Program](#) at VCU provides resources and recommendations to implement more sustainable lab practices. Additionally, they have personnel available to consult with labs and help researchers integrate these green practices.

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:

1

Score explanation: Students have organized and held demonstrations since 2016 to campaign for the divestment of VCU funds from fossil-companies, but no significant divestments were made.

Section Total (12 out of 32)

37.5%

Back to Summary Page [here](#)

Grading

Section Overview

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

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

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

[Please input your scores [HERE](#)]

Planetary Health Grades for the VCU Department of Health Administration

The following table presents the individual section grades and overall institutional grade for the Department of Health Administration on this medical-school-specific Planetary Health Report Card.

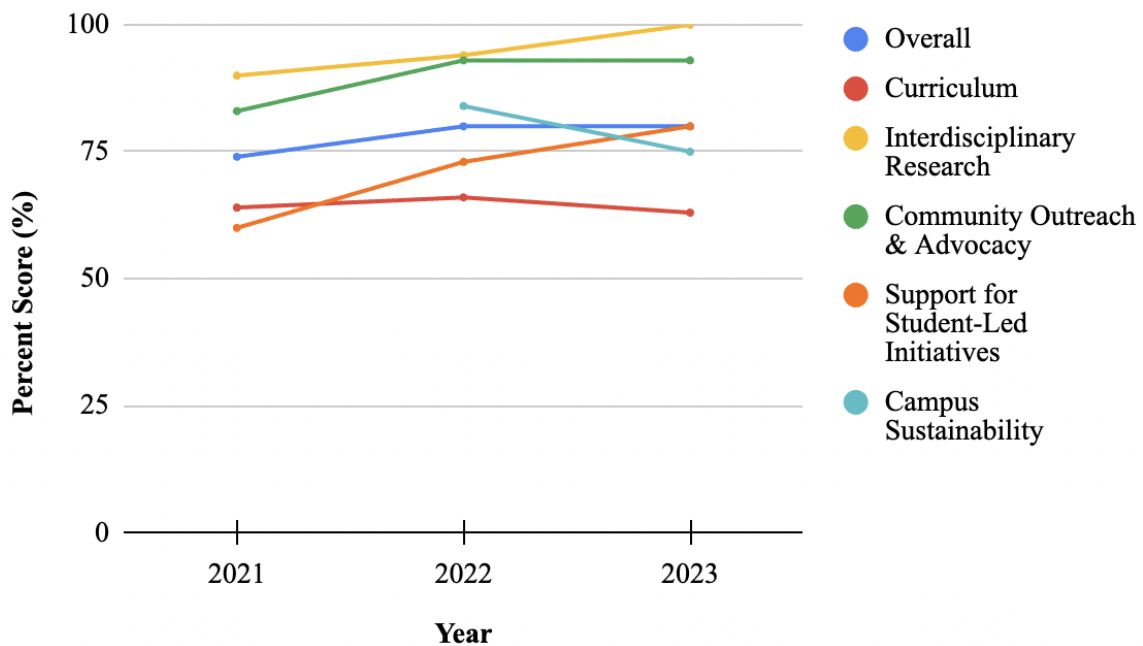
Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	$(22/32) \times 100 = 68.75\%$	B
Interdisciplinary Research (17.5%)	$(8/17) \times 100 = 47.05\%$	C
Community Outreach and Advocacy (17.5%)	$(3/14) \times 100 = 21.42\%$	D–
Support for Student-led Planetary Health Initiatives (17.5%)	$(6/15) \times 100 = 40\%$	C–
Campus Sustainability (17.5%)	$(12/32) \times 100 = 37.5\%$	D+
Institutional Grade	$(A \times 0.3 + B \times 0.175 + C \times 0.175 + D \times 0.175 + E \times 0.175) = 46.169\%$	C

Report Card Trends

Section Overview

This graph demonstrates trends in overall and section grades for the years in which [INSTITUTION NAME] has participated in the Planetary Health Report Card initiative.

Planetary Health Report Card Trends for [SCHOOL NAME]



For those teams that have participated in the PHRC initiative for more than one year, we have created this Google spreadsheet which can be used to generate a graphical representation of the school's trends of section-based and overall scores. You can either plug the numbers into the table and then just copy and paste your graph into your report, or you can create a copy of the Google spreadsheet so you can have a version long term to update and edit.

[Here](#) is the link to the spreadsheet to create your graph to create one

References: