



NURSING

Planetary Health Report Card

Faculty of Medicine and Health Sciences



Stellenbosch
UNIVERSITY
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forward together
sonke siya phambili
saam vorentoe

University Of Stellenbosch

2024-2025 Contributing Team:

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- **(Student Task Allocations on Page 51)**
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Summary of Findings

| | |
|---|-----------|
| Overall Grade | B+ |
| Curriculum | B+ |
| <ul style="list-style-type: none"> The content on Environmental Sustainability, presented by Mrs. C. Groenewald through a PowerPoint on Environmental Sustainability and the video on Climate Fresk, covers the impact of environmental degradation and climate change on health. While these topics are part of the curriculum, they are not explored in great detail. Additional resources, such as a YouTube presentation by Professor Bob Mash on Climate Change: The Greatest Global Health threat of the 21st Century as well as the Presentation on Climate Change in Public Health, address the health effects of pollution, extreme heat, and emerging pathogens. The curriculum integrates discussions on how climate change affects health, including the role of hospitals in contributing to climate change through energy use, waste, and pharmaceuticals. The course also emphasizes the need for behavioural changes in the healthcare sector to reduce carbon footprints, with goals like achieving carbon neutrality by 2050. There is a focus on the broader health system resilience, including the importance of international funding mechanisms and addressing climate-induced damages in healthcare facilities, as highlighted by the Minister of Health's visit to flood-affected areas in Durban. The Climate Fresk video also discusses the harmful waste generated by healthcare facilities, such as pharmaceutical degradation, aerosols, and the environmental impact of anaesthetic drugs and antibiotics. Recommendations: While the topics on environmental sustainability are included, they should be explored in greater depth throughout the curriculum. This could involve dedicated modules or courses that focus solely on the intersection of climate change, health, and healthcare sector contributions to environmental degradation. Integrating case studies, real-world examples, and interactive learning can enhance understanding and engagement. | |
| Interdisciplinary Research | A- |
| <ul style="list-style-type: none"> Stellenbosch University has a school of climate change with various projects engaging in planetary health at the institution. Recommendations: They should have more workshops to get more students involved and create opportunities that will be beneficial to student when they part take in such projects. In addition, involve planetary health into the nursing curriculum. | |
| Community Outreach and Advocacy | C |
| <ul style="list-style-type: none"> The Faculty of Medicine and Health Sciences have resources and programmes in place to make students and staff aware of planetary health. Two hospitals affiliated with the university that also has a programme in place. The other periphery hospitals affiliated with the university need more training to provide information to their staff and patients. The faculty has also been actively engaged in multiple community outreach programs, demonstrating a strong commitment to health equity and environmental sustainability. Key strengths observed include ongoing community engagement initiatives addressing public health and environmental sustainability, integration of sustainable health practices within outreach programs, and advocacy efforts aimed at promoting awareness of planetary health issues. Recommendations: We recommend expanding outreach initiatives, strengthening collaboration with local and regional partners to broaden the reach and effectiveness of community-based health interventions, enhancing advocacy efforts, increasing engagement in policy advocacy related to planetary health. | |
| Support for Student-Led Initiatives | A+ |

- The University is completely compliant in this division. Students are supported through funding by the Department or Division for social impact for projects aligned with the latest sustainable development goals and are subsequently awarded with Eco champion certificates. The university has a fellowship for students namely “The EcoMaties sustainable society.” Stellenbosch University has a planetary health webpage which falls under the School of Climate studies, with the emphasis on sustainable initiatives. Information regarding planetary health can also be accessed on the University’s Facebook and Instagram pages. Student groups are actively supported by faculty advisors in promoting planetary health. Advocacy for the students is done by a student liaison who represents the students on the decision-making council. The Faculty of Medicine and Health Sciences has several co-curricular planetary health programmes outside the Tygerberg campus encouraging students to participate. These programmes are displayed on the University’s Facebook and Instagram pages.
- **Recommendations:** It is recommended that an easier accessible portal or link be placed on the main FMHS's webpage for students to access student-related organizations or events occurring on campus, specifically for the part time students to know what is scheduled and how to get involved.

Campus Sustainability

B

- This Faculty of Medicine and Health Sciences has put significant efforts into creating a thriving environment, with an outdoor gym for students surrounded with a campus 5 km walk amongst indigenous plants. Ongoing programmes include food gardens for students, worm farms for composting, and tree planting, as well as indigenous hardy plants all over campus. Everything on campus is measured, from water consumption to electrical use, and compared per building on a monthly basis, to ensure waste is minimised. New buildings on campus have been built on the basis of their green star status, with natural lighting and sun panels. A wastewater plant built on campus ensures that all rain water is stored for grey water usage. Although the three drum waste removal system has to be motivated for on a yearly basis amongst new students, there is traction to comply. Cafeterias on campus have been encouraged to make use of containers that are degradable. The Faculty of Medicine and Health Sciences has done excellent work in environmental sustainability and continues to influence students and staff to ensure campus sustainability is implemented at all buildings and campus spaces.
- **Recommendations:** Growing awareness of sustainable development needs to be part of the everyday campus life and continuous involvement in busy programmes needs to be made on lecturer and student level to sustain the tempo of improvements.

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.

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 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.
- **Nursing School/Department vs. Institution:** When “nursing school” is specified in the report card, this only refers to curriculum and resources offered by the School/department of nursing 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 nursing 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:** 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 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. Paediatrics, 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 nursing school curriculum. The curriculum for nursing programs around the world shares many core topics regarding health and the medical system. In order to create a truly holistic education that includes the implications of our changing climate, the subject must be integrated into the nursing curriculum. As future frontline workers, nurses will experience the dire consequences of climate change first hand and must be equipped to not only care for afflicted patients but to encourage preventative change. We are already seeing the impacts on human health that climate change can bring, and the nursing curriculum must reflect these realities.

1.1. Does your nursing school offer courses regarding the relationships between extreme weather events, health effects, 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: The University presented a PowerPoint on Environmental Sustainability, which was delivered by Mrs. C. Groenewald. Additionally, in a generic Module for the Postgraduate Diplomas, a video titled Climate Fresk was uploaded by Praxis for viewing to supplement the content. In the Undergraduate degree programme, a module called Planetary Health is offered.

1.2. Does your nursing program provide education regarding the impacts of extreme weather events (e.g. storm, flooding, heat, drought, air pollution) on individual 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: Although these topics are included in the core curriculum, they are not explored in depth. A YouTube link (<https://www.youtube.com/watch?v=-iPtoDwzXiE>), presented by Prof. Bob Mash, was provided, along with a presentation on Climate Change in Public Health.

1.3. Does your nursing curriculum address the impacts 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) | |
| This topic was covered in elective coursework. (1 point) | |
| This topic was not covered. (0 points) | |
| Score Assigned: | 2 |
| <i>Score explanation: There was topics that was covered by Prof Bob Mash on the webinar that was done on Climate Change: The greatest Global Health Threat of the 21st Century.</i> | |

| | |
|---|---|
| 1.4. Does your nursing curriculum address pathophysiological health effects resulting from environmental degradation and climate change, including effects such as air, soil and water pollution, extreme heat, human-animal interactions, and emerging pathogens? | |
| This topic was explored in depth by the core curriculum. (3 points) | |
| This topic was briefly covered in the core curriculum. (2 points) | |
| This topic was covered in elective coursework. (1 point) | |
| This topic was not covered. (0 points) | |
| Score Assigned: | 3 |
| <i>Score explanation: Our nursing curriculum addresses the pathophysiological health effects resulting from environmental degradation and climate change. It covers a range of topics including the health impacts of air, soil, and water pollution, as well as the effects of extreme heat, human-animal interactions, and emerging pathogens. These subjects are integrated into our coursework and are discussed in relation to public health, disease prevention, and clinical care. This information was presented by Mrs C Groenewald within her Powerpoint presentation on Environmental Sustainability as well as the 18 min video on Climate Fresk.</i> | |

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|---|---|
| 1.5. Does your nursing curriculum address mental health issues and well-being effects resulting from 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 |
| <i>Score explanation: The type of mental health issues was only named in the Power Point Presentations done by Mrs C Groenewald as well as Prof Bob Mash, but not covered in depth.</i> | |

1.6. Does your nursing curriculum address relationships between climate change, food and water security, and the impact on 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:

3

Score explanation: Articles such as (From bandages to buildings: Identifying the environmental hotspots of hospitals - <https://www.sciencedirect.com/science/article/pii/S0959652621026901> and PDF Addressing Climate Change in the Health Care Setting - Opportunities for Actions (chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/<https://practicegreenhealth.org/sites/default/files/pubs/epp/ClimateChange.pdf>), does not only speak of how climate change impact food, water and health but as well as how hospitals and the health sector contributes to the climate change and therefor have an impact on health due to heating, electricity use, waste, pharmaceuticals and medical and housekeeping products.

1.7. Does your nursing program address the environmental and health co-benefits of a plant-based diet?

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

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

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

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

Score Assigned:

3

Score explanation: Professor Bob explained in depth the environmental and health impacts of a plant-based diet.

1.8. Does your nursing school curriculum address relationships between ecosystem health, human 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:

3

Score explanation: the curriculum addresses relationships between ecosystem health and human health and the effects it had on the climate change in depth. The 8 credit module Praxis has an expected level outcome which deals with advocacy. Advocacy for the planet and the One Health concept was dealt with here in a 5 lesson session one of the four days allocated for teaching of the module.

1.9. Does your nursing curriculum address the reproductive health effects of industry-related environmental toxins (e.g. air pollution, pesticides)?

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

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

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

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

Score Assigned: 3

Score explanation: Prof Mash discusses the impact pollution and environmental toxins have on the reproductive health in the video provided for the Praxis module for all Postgraduate Diplomas for nursing.

1.10. Does your nursing program emphasize the importance of Indigenous and Traditional Knowledge 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: 1

Score explanation: This topic was not covered in the overall curriculum, however some of the postgraduate diplomas, such as mental health has alternative methods to traditional health cares which is investigated.

1.11. Does your nursing curriculum address important human-caused environmental threats that are relevant to the university or program'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)

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|---|---|
| This topic was not covered. (0 points) | |
| Score Assigned: | 3 |
| <i>Score explanation: This is addressed, by creating an awareness of the effects of humans on the planet and on climate change. Our students also are encouraged in their projects as part of the Postgraduate Course, to engage with efforts within the communities to create awareness, hence our Eco Warrior certificate to students involved at a local radio station and community health centre in Khayelitsha.</i> | |

| 1.12. Does your nursing curriculum address socioeconomic/racial disparities in extreme weather and climate change exposure? | |
|---|---|
| This topic was explored in depth by the core curriculum. (3 points) | |
| This topic was briefly covered in the core curriculum. (2 points) | |
| This topic was covered in elective coursework. (1 point) | |
| This topic was not covered. (0 points) | |
| Score Assigned: | 3 |
| <i>Score explanation: The effect climate change has on impoverished communities and subsequent migration to cities is explored in the course. Disaster management within climate disasters is also dealt with in this core content.</i> | |

| 1.13. Does your nursing curriculum address inequitable 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: | 2 |
| <i>Score explanation: This was briefly discussed in "Environmental sustainability" presentation that most affected population groups are those that belong to poor socio-economic backgrounds at a global scale e.g., in Asia and Africa.</i> | |

| 1.14. Does your nursing curriculum address climate and environmental health challenges that impact marginalized populations and communities? |
|--|
| 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 |
| <i>Score explanation: This topic was briefly discussed in the "World health organization" link about climate change, that marginalized populations /communities are most vulnerable to the crisis of climate change. Aspects about island countries most vulnerable to sea level rise is dealt with in the Climate Fresc video. Discussions in same 5 lesson lecture about vulnerable populations in KZN and Cape Town and their exposure and then resulting types of presentation at public emergency care centres.</i> | |

| | |
|---|---|
| 1.15. Does your nursing curriculum address the impact of environmental degradation due to climate change on marginalized populations and communities? | |
| 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 |
| <i>Score explanation: This was briefly discussed in video clip titled "Climate Fresk" that environmental degradation causes poor agricultural produce, further aggravating the burden of poverty and malnutrition in the marginalized groups.</i> | |

| | |
|---|---|
| 1.16. Does your nursing curriculum address the outsized impacts of anthropogenic environmental toxins on marginalized populations and communities? | |
| 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 |
| <i>Score explanation: This topic was discussed related to air pollution in the Gauteng region, where mines cause lung disease. This is covered in the climate Fresc and in the module called Praxis. Students are also referred to the impact of their workplaces on doing away ethically with toxic solvents such as Cidex for sterilising of instruments.</i> | |

1.17. Does your nursing curriculum address the impacts of extreme weather events 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: This is presented in the Climate Fresc and with Prof Bob Mash's Youtube video in the Praxis module.

1.18. Does your nursing program 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: It does, via the Healthcare without Harm's Global Green and Healthy Initiative through the Praxis module.

1.19. Does your nursing program curriculum or coursework highlight the waste generated by healthcare provision?

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

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

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

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

Score Assigned: 3

Score explanation: The topic was explored in, especially in educational videos that were presented, in terms of the harmful waste to the environment that is presented by healthcare facilities like hospitals, labs and many more facilities. It stresses the measures that the organization is taking this matter seriously and doing all it can to place the correct waste in the right place. Video content was found on Climate Fresk and mentioned by Mrs C Groenewald.

1.20. Does your nursing program cover the contributions of pharmaceuticals to environmental degradation and climate change (e.g., anaesthetic gases, inhalers, antibiotic resistance, etc.)?

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

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

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

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

Score Assigned: 3

Score explanation: It is addressed in the Healthcare without Harm content related to the Global Green and Healthy Hospitals Initiative mentioned in the Praxis module.

1.21. Does your nursing school's curriculum introduce strategies for having conversations with patients, nursing home residents, visitors, and other health professionals about the health effects of climate change and other environmental disruptions?

Yes, the **core** curriculum includes strategies for conversing with patients and other health professionals regarding climate change and environmental disruptions. (2 points)

There are **elective** courses that include strategies for conversing with patients and other health professionals regarding climate change and environmental disruptions. (1 point)

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

Score Assigned: 2

Score explanation: As presented to the students, according to the article below, it speaks about the office of Dept of Health which are reaching out to community health care centres to give better education and perception regarding climate changes.

<https://eu.docworkspace.com/d/sINb-yPeAtyIrr0G?sa=601.1094&ps=1&fn=ClimateChange.pdf>

1.22. Does your school have an appointed faculty or staff responsible for planetary health and environmental nursing?

Yes, the nursing program has **at least one** appointed faculty or staff responsible for planetary health and environmental nursing. (1 point)

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

Score Assigned: 1

Score explanation: Dr Christian Leume has been appointed for Planetary Health in the division of Primary Health Care. Dr C Young deals within the Nursing Dept with the Postgraduate Diploma Nursing students in the core module Praxis.

1.23. Does your program offer Interdisciplinary Education (IPE) simulations or experiences regarding the health risks of climate change and other environmental disruptions?

Yes, the school of nursing has been involved with IPE simulations or experiences in the **past year**. (2 points)

Yes, the school of nursing has been involved with IPE simulations or experiences in the **past three years**. (1 point)

No, the school of nursing has not been involved with IPE simulations in the past three year. (0 points)

Score Assigned:

0

Score explanation: There is not enough interdisciplinary involvement, as nursing students on postgraduate level rarely mix with other disciplines in their course. On undergraduate level there are encouragement of undergraduate nursing students to get involved with students of other disciplines in the activities such as tree planting, but not in simulation activities to deal with patients.

Section Total (51 out of 65)

78.46%

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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:

2

Score explanation: Stellenbosch University does not have an exclusive research team that primarily focuses on planetary health and health care sustainability, However, there are researchers within the school of climate that share the same interest in planetary health and sustainability. One particular researcher currently focuses on planetary health education and integration of planetary health into primary health care and patient care.

<https://climate.sun.ac.za/research/>

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 points)

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

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| Score Assigned: | 3 |
| <p><i>Score explanation: Stellenbosch University has the School of Climate Studies, whose goal is to initiate and support the transition into a climate-resilient society and a low-carbon economy. The school creates and implements an interdisciplinary and transdisciplinary curriculum through undergraduate and postgraduate courses across various faculties at Stellenbosch University. They promote interdisciplinary research, modelling skills, and policy-making to enhance the understanding of climate issues and the mitigation strategies thereof. They are continuously expanding collaborations and partnerships in climate studies, both locally and internationally.</i></p> | |

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

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| Score Assigned: | 2 |
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Score explanation: The university engages with communities that are disproportionately affected through initiatives focused on research, community engagement and education. These initiatives include energy reduction, waste management and research. The university actively engages with the surrounding communities to understand their concerns, involve them in research projects and develop solutions that are relevant to their specific needs. An example of a community involvement project by Stellenbosch university together with the Stellenbosch municipality is The value of water: Amanzi yimpilo project whose aim is to clean the rivers through environmental education in Enkanini informal settlement and the business community, (Fourie-Basson, 2019).

It involves an education project called iqhawe lemvelo which means nature hero. The amanzi yimpilo team consists of individuals from Enkanini who are trained as co-researchers by Stellenbosch University. The team trains the kids on water biodiversity, waste and energy in Enkanini. The project has since brought clean water to drought –stricken schools and has shown how locals can use their own resources to address a community need, (Iqhawe Lemvelo Education Project- PHA Water Restores, 2025).

Sources:

Fourie-Basson, W. [2019] News - Innovative educational project provides life. [Online]. Available: <https://www.SUN.ac.za/> [2025, February 11]

Iqhawe Lemvelo Education Project – PHA Water Restore, 2025. [Online], Available: <https://phawaterrestores.org.za/new/iqhawe-lemvelo-education-project/> [2025, February 11]

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: http://www.climate.sun.ac.za is a website run by the University of Stellenbosch that centralizes research and facilitates information sharing on planetary health and the environment. Its goal is to inform effective collaboration to achieve planetary health outcomes with an emphasis on one health concept. | |

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| 2.5. Has your <u>institution</u> recently hosted a conference or symposium on topics related to planetary health? | |
| Yes, the institution has hosted at least one conference or symposium on topics related to planetary health in the past year. (4 points) | |
| Yes, the institution has hosted at least one conference or symposium on topics related to sustainable healthcare/vetcare in the past year. (3 points) | |
| Yes, the institution has hosted a conference on topics related to planetary health / sustainable healthcare/vetcare in the past three years. (2 points) | |
| The institution has not hosted any conferences directly, but they have provided financial support for a local planetary health event. (1 point) | |
| No, the institution has not hosted a conference on topics related to planetary health in the past three years. (0 points) | |
| Score Assigned: | 4 |
| <p>Score explanation: Yes, the University had the Africa-Europe clusters of research excellence conference between 29 September and 2 October 2024, during which more than 250 academics and researchers from across 27 countries in Europe and Africa attended. The conference incorporated concepts such as Sustainable Development and Climate Adaption, amongst others. (The Guild of European Research-Intensive Universities, 2024)</p> <p>Academics, researchers and students are invited to submit their proposals for the upcoming conference in March 2025 – the SU/ NU Global Health Knowledge Hub Conference. One of the subthemes for this conference will be the Human Health and the Planet. (SU/NU Global Health Knowledge Hub, 2025)</p> <p>References: SU/NU Global Health Knowledge Hub. 2025. Conference – SU/NU Global Health Knowledge Hub. [Online], Available: https://nu-hub.sun.ac.za/conference/ [2025, February 10]. The Guild of European Research-Intensive Universities. 2024. Africa-Europe CoRE conference</p> | |

2024. [Online], Available:
<https://www.the-guild.eu/news/2024/inaugural-africa-europe-core-conference-fostering-.html>
[2025, February 10].

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:

1

Score explanation: Yes, the university is a member of the Global Alliance of Universities on Climate (GAUC), which was formed in January 2019 in Switzerland. This organisation aims to approach climate change solutions utilizing research, education and public outreach.

The University is also an associate of the Nature Positive Universities, whose purpose is to grow a network of people from over 500 institutions of higher learning across the world operating together to promote nature on campuses, supply chains, and within cities and communities.

The university is likewise a member of the Mediterranean Climate Action Partnership (mcap) Western government. The organisation is led by the government of Catalonia, Spain, and the state of California, United States of America. The leaders across impacted Mediterranean regions have collaborated to drive collective action around drought, wildfire, and extreme heat.

Reference list

<https://climate.sun.ac.za/research/> accessed online. 11 Feb 2025

<https://www.gauc.net/> accessed online 11 Feb 2025

<https://www.naturepositiveuniversities.net/> accessed online 11 Feb 2025

<https://www.medclimate.org/> accessed online online 11 Feb 2025

<https://www.medclimate.org/> accessed online 11 Feb 2025

Section Total (14 out of 17)

82.35%

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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 **institution** 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:

3

Score explanation: Stellenbosch University's Faculty of Medicine and Health Sciences (FMHS) is actively engaged in promoting planetary health through various initiatives and partnerships. One notable collaboration is with the non-profit organization, Greenpop. The FMHS has partnered with Greenpop to involve students in tree-planting festivals, where thousands of trees are planted over a weekend to promote environmental sustainability. Additionally, the FMHS has collaborated with the fundraising platform GivenGain to raise funds for establishing a garden at Helderberg Hospital in Somerset West. The university contributed a R100,000 Social Impact grant towards this project, further demonstrating its commitment to integrating environmental initiatives within healthcare settings.

Stellenbosch University is currently actively involved in the following initiatives:

- *Community based Rehabilitation Witzenberg implementing the World health organization guidelines with intended impact on sustainable development goals.*
- *Amanzi Yimpilo Project (Water is Health) This project's aim is to research the challenges within the community regarding water, waste and sanitation services and to find sustainable solutions. This includes active involvement of the community and their youth. This project also aims to educate and empower our younger generation to make a change within our communities.*

Stellenbosch University, Division of Community health Available:

https://www.sun.ac.za/english/faculty/healthsciences/Community%20Health/Pages/Community_Health.aspx (Access: 10/02/2025)

Stellenbosch University (2020) The Value of water: The Amanzi Yimpilo project. Available at:

<https://www.youtube.com/watch?v=HGtFfD4x0Go&t=8s> (Accessed: 11/02/2025)

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/medical school** have not offered such community-facing courses or events. (0 points)

Score Assigned:

1

Score explanation: There are several affiliated events in the community regarding planetary health. Collaborations with Greenpop: The FMHS partners with the non-profit organization Greenpop to involve students in tree-planting festivals, promoting environmental sustainability. These events engage the community in hands-on activities that contribute to planetary health. Helderberg Hospital Garden Project: The faculty collaborated with the fundraising platform GivenGain to establish a garden at Helderberg Hospital in Somerset West, demonstrating a commitment to integrating environmental initiatives within healthcare settings. References: <https://www.sun.ac.za/si/en-za/Pages/MGD.aspx>

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:

2

Score explanation: Stellenbosch University's Faculty of Medicine and Health Sciences (FMHS) actively addresses issues related to planetary health and sustainable healthcare through various initiatives, which are regularly highlighted in university communications.

Stellenbosch Forum Lectures:

The FMHS faculty members, such as Prof. Bob Mash, have delivered lectures on topics like "Climate change: the greatest global health threat of the 21st century," emphasizing the intersection of climate change and health. (sun.ac.za)

Collaborations and Conferences:

The FMHS has partnered with organizations like the Consortium of Universities for Global Health (CUGH) to host conferences focusing on global health and sustainability, underscoring the faculty's commitment to these issues. (sun.ac.za)

Research Initiatives:

The faculty is involved in research projects aimed at integrating climate resilience and environmental sustainability into healthcare, such as developing curricula for continuing professional development in these areas. (climate.sun.ac.za)

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: No such course currently exists.

3.5. Does your institution or its affiliated teaching hospitals 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: 0

Score explanation: no such educational materials exist.

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

Yes, the **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 hospitals have accessible educational materials for patients. (0 points)

Score Assigned: 1

Score explanation: Tygerberg Hospital, affiliated with Stellenbosch University, offers informative materials, including posters, that discuss the correlation between health effects and climate change.

Section Total (7 out of 14)

50%

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

Score Assigned:

2

Score explanation: There is a department or division for social impact which has funding available for projects that are in line with a Stellenbosch universities theme which are directly aligned with the latest sustainable development goals agreed on and proposed by the United Nations. Environmental sustainability is a larger category within the universities themes which is broken down into smaller categories namely: Sustainable cities and communities, climate action, life below water, and life on land. The university is willing to fund students with start-up capital in order to create a positive social impact.

<https://www.sun.ac.za/si/en-za/Pages/Funding-opportunities.aspx>

<https://www.sun.ac.za/english/management/Documents/2024/SU%20Social%20Impact%20Themes.pdf>

Stellenbosch university is supportive of students who are interested in enacting sustainability initiatives - last year a group of post graduate nursing students gave a proposal to the university for starting an awareness drive and setting up waste segregation bins with the purpose of recycling. The university approved the initiative and supported the students by funding the means to set up waste segregation bins and the students had an informative talk with the community making them aware of the importance of recycling and segregating waste i.e. starting a community initiative. The university subsequently awarded the said students with Eco champion certificates.

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:

2

Score explanation: There are 2 current research studies and 1 recent previous study within the planetary health programme, and in the sphere of sustainable healthcare that Stellenbosch university is running currently namely :

- 1. "Climate change, human mobility and Disease Dynamic: case of Malaria in South Africa" started in 2024 and will be completed in 2026 that is led by Dr. Christian Lueme.*
- 2. "What do Primary healthcare providers and managers need to know about building climate resilient and environmentally sustainable facility and services and how these learning needs should be addressed." This study ran over 2023-2024 and led by Prof. Bob Mash and Dr. Christian Lueme.*
- 3. "Evaluating the climate resilience of primary healthcare facilities and services in the Western Cape" This programme will run over the period 2023-2025*
https://climate.sun.ac.za/project_category/planetary-health/

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:

2

Score explanation: Yes, under Stellenbosch university webpage, planetary health - School for climate studies, there are quite a number of current projects with their respective project leaders (Publishers).

A few of projects are as follows:

- Climate change, human mobility and disease dynamics, case of Malaria in South Africa by Dr Christian Lueme.*
- Developing model operations to reduce flood risk in South Africa by Dr Andrew Watson.*

4.4. Does your institution have registered student groups dedicated towards fostering a

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| 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 |
| <p><i>Score explanation: Yes, Stellenbosch university faculty advisors are in support of student groups that promote planetary health. At the Faculty of Medicine and Health Sciences, student representatives from each house on campus belong to the Deans Advisory Committee of Environmental Sustainability (DACES). The purpose is to promote environmental sustainability in their houses amongst other students, and to report on activities involved in during the year; have information sessions on campus. Once a year the house with the most involvement in sustainability involvement is awarded a prize and a certificate. Stellenbosch University also have Facebook page as well as Instagram where you can access the information on the following :</i></p> <p>http://www.facebook.com/Share/isiatiem and www.instagram.com/su.enviromental.sust</p> | |

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| 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 that serves on a department or institutional decision-making council/committee. (1 points) | |
| No, there is no such student representative. (0 points) | |
| Score Assigned: | 1 |
| <p><i>Score explanation: On 18/07/2024 an article was published: "FMHS Students grade SU's planetary health status", by Author: FMHS Marketing & Communications – Sue Segar, on the FMHS website. This article mentions the presence of students at the University, who are present as members of the Dean's Advisory Committee on Environmental Sustainability (DACES). This includes a medical student who is the Sustainability Manager for the Campus' students & acts as the Manager for the Tygerberg Students Representative Council (TSRC), as well as a Physiotherapy student.</i></p> <p>News - FMHS students grade SU's planetary health...</p> | |

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| 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 |

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| <p><i>Stellenbosch University has several courses outside of the Tygerberg Campus, in the Agricultural field, which allows student to formally partake in the Faculty of AgriSciences. The programmes include courses as: Biotechnology, Agronomy, Food Science, Animal Science etc. https://agric.sun.ac.za/. Notwithstanding, the Agricultural rich syllabus outside campus, the Stellenbosch Faculty of Health & Medicine encourages students to partake in projects on campus. These activities includes gardening, Rain water reservation projects and several additional projects on a regular basis. The Faculty proudly owns a student-driven vegetable garden known as: “The Vegatable Garden Club”, that allows students to partake in growing organic agriculture on campus since 2018. https://www.sun.ac.za/english/Lists/news/DispForm.aspx?ID=8398.</i></p> | |
| <p>Panels, speaker series, or similar events related to planetary health that have students as an intended audience.</p> | 1 |
| <p><i>There have been discussions, awareness campaigns, environmental clean-up projects by student volunteers, etc in the past year.</i></p> | |
| <p>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.</p> | 1 |
| <p><i>The Western Cape Minister of Health, Prof Nomafrench Mbombo and the Western Cape Government has been involved with especially nursing students in their first Praxis lecture and motivated for involvement in Global Green and Healthy Hospital initiatives.</i></p> | |
| <p>Cultural arts events, installations or performances related to planetary health that have students as an intended audience.</p> | 1 |
| <p><i>A recent outdoors Welcoming fair was held that included activities that could be attended by all new students and served as an introduction for students to Environmental & planet wellbeing.</i></p> | |
| <p>Local volunteer opportunities related to building community resilience to anthropogenic environmental impacts.</p> | 1 |
| <p><i>The social media pages are also evident of learning opportunities that students can partake in, to gain knowledge from members of the neighbouring district where dangers & challenges of climate & environmental challenges can be discussed during community clean-up projects.</i></p> | |
| <p>Wilderness or outdoors programs (e.g., that organise hiking, backpacking, kayaking, or other outings for students)</p> | 1 |
| <p>Students had the opportunity to go to Gansbaai for a weekend for a sustainability week where they camp out, receive lectures and get involved in like-minded people. A week in Knysna was also a regular feature with Greenpop similar to the Gansbaai outing, but over a longer period.</p> | |
| <p>Section Total (15 out of 15)</p> | <p>100%</p> |

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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 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 |
| <p><i>Score explanation: The Environmental Sustainability has four employees that ensures environmental sustainability is implemented at the university. They are part of the Stellenbosch university facility management (SUFM) and accountable for the eight themes of energy and emissions, water, waste, biodiversity and land use, travel and mobility, sustainable buildings, goods and services and engagement to become more environmentally sustainable. They communicate with the different faculty managers to ensure that their objectives are met and broadens knowledge with conservations around environmental sustainability around campuses.</i></p> <p>https://facilitiesmanagement.sun.ac.za</p> | |

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

Score explanation: Stellenbosch university aims to achieve carbon neutrality by 2030. The institution follows its vision 2040 and Strategic framework 2019-2024, focusing on promotion of systemic sustainability in a social, economic and environmental sense. With its commitment to reach net zero carbon by 2050, the university launched its first Environmental Sustainability Plan (SU ESP).

<https://facilitiesmanagement.sun.ac.za>

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: Stellenbosch University's institutional building uses renewable energy sources such as solar, wind, hydropower and biomass to name a few. The University in partnership with The Centre for Renewable and Sustainable Energy studies (CRSES), work closely with the Faculty of Engineering and Economic & Management sciences on a post graduate level where devises that can harness wave energy has been designed alongside Heliostats, wind generators by wind turbine systems and the solar turtle that is a battery charging system, that positively impacts and support the Eco-Maties future. The initiative also focuses on institutional and community participation, aiming to promote behavioural change such as switching of lights & appliances not being used, using metering systems to monitor water use and reporting leaks of taps etc.

(Groenewald, C., 2025, Environmental sustainability [power point presentation], www.sun.ac.za).

(Stellenbosch University, Centre for Renewable and Sustainable Energy Studies video, 2014,

YouTube, www.youtube.com/@StellenboschUni)

(www.crses.sun.ac.za)

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)

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|--|---|
| Sustainability is not considered in the construction of new buildings. (0 points) | |
| Score Assigned: | 2 |
| <p><i>Score explanation: Sustainable building practices are upheld by the National Environmental Management Act, No. 107, 1998 of the Government gazettes for all business, teaching and learning Institutions/ buildings that incorporates sustainable growth and development initiatives, for both old and new infrastructure practices.</i></p> <p><i>Groenewald, C., 2025, Environmental sustainability [power point presentation], www.sun.ac.za).</i></p> <p><i>(National Environmental management Act of South Africa, No. 107 of 1998, Department of Forestry, Fisheries and the Environment, February, 2014)</i></p> <p><i>Greenstar rating of the BMRI building (new) of the Faculty of Medicine and Health Sciences.</i></p> <p><i>https://www.sun.ac.za/english/faculty/healthsciences/biomedical-research-institute/Pages/Green.aspx#:~:text=The%20BMRI%20was%20rated%20according,the%20BMRI's%20Green%20Star%20scoring.</i></p> <p><i>Other (19) buildings been retrofitted: https://facilitiesmanagement.sun.ac.za/sustainable-buildings/</i></p> | |

| | |
|--|---|
| 5.5. Has the <u>institution</u> 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 |
| <p><i>Score explanation: In order to cut down on carbon emissions from driving several cars, the Stellenbosch campus offers public transportation. The Faculty of Medicine and Health Sciences are situated in an area not conducive to safe foot and public travel, but make use of buses and shuttles to and from the clinical area and campus. They also want to limit the usage of single-occupancy vehicles. Additionally, it promotes the usage of bicycles by students who are departing near campus.</i></p> <p><i>http://facilitiesmanagement.sun.ac.za</i></p> | |

| | |
|---|--|
| 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: | 2 |
| <p><i>Score explanation: The site is equipped with trash infrastructure (bins and signage), and organic food waste is used for compost and recyclable materials. This lessens the amount of waste dumped in landfills and supports the circular economy. Paper trash sorted guarantees that valuable goods in recycling are less contaminated. The facility has a well-functioning recycling program.</i></p> <p>http://www.sun.ac.za.</p> | |

| | |
|---|---|
| 5.7. Does the <u>institution</u> apply sustainability criteria when making decisions about the campus food and beverage selections (e.g. local sourcing, reduced meat, decreased plastic packaging)? | |
| Yes, the institution has adequate sustainability requirements for food and beverages, including meat-free days or no red-meat, and is engaged in efforts to increase food and beverage sustainability. (3 points) | |
| There are sustainability guidelines for food and beverages, but they are insufficient or optional . The institution is engaged in efforts to increase food and beverage sustainability. (2 points) | |
| There are sustainability guidelines for food and beverages, but they are insufficient or optional . The institution is not engaged in efforts to increase food and beverage sustainability. (1 point) | |
| There are no sustainability guidelines for food and beverages. (0 points) | |
| Score Assigned: | 2 |
| <p><i>Score explanation: Stellenbosch University has cafeterias on the premises of Tygerberg Hospital. This makes it easier and safe for students as well as staff to purchase meals on the premises. Food providers need to complete questionnaires annually providing information on what ingredients they make use of as packaging and should be sustainable. Meat-free days or no red meat days to be encouraged.</i></p> | |

| | |
|--|---|
| 5.8. Does the <u>institution</u> apply sustainability criteria when making decisions about supply procurement? | |
| Yes, the institution has adequate sustainability requirements for supply procurement and is engaged in efforts to increase sustainability of procurement. (3 points) | |
| There are sustainability guidelines for supply procurement, but they are insufficient or optional . The institution is engaged in efforts to increase sustainability of procurement. (2 points) | |
| There are sustainability guidelines for supply procurement, but they are insufficient or optional . The institution is not engaged in efforts to increase sustainability of procurement. (1 point) | |
| There are no sustainability guidelines for supply procurement. (0 points) | |
| Score Assigned: | 3 |
| <p><i>Score explanation: The Stellenbosch University have Policy Notes on:</i></p> | |

- Obtaining goods and service
- Purchasing and Tender Policy
- Financial guidelines regarding purchasing and selling liquor in residence clubs
- Purchase of Academic or Jib related textbooks

This institution is dedicated to monitor this system of procurement and measuring the progress on what effects it has on the environment and society.

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: | 2 |
|-----------------|---|

Score explanation: There are a number of sustainability standards and principles to consider while organising events at the Stellenbosch Faculty of Medicine and Health Sciences. The University has a Centre for Sustainability Transitions, which offers advice and assistance on how to make events more environmentally friendly. Among the many services they provide are sustainability evaluations and suggestions for cutting back on waste and energy use. The university has several programs in place to encourage sustainability in addition to these standards. One such program is the Sustainable Innovation Stellenbosch Network, which links nearby companies to foster innovation for sustainability.

<http://www.climate.sun.ac.z>

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: Stellenbosch University's Faculty of Medicine and Health Sciences is committed to reducing its environmental footprint and promoting sustainability in its laboratory spaces. They have implemented various programs and initiatives to make their laboratory more environmentally friendly.

- *Green lab initiative - The institution has started a Green Lab Initiative with the goal of lowering waste production, water use, and energy use in lab settings. Measures included in the initiative include energy-efficient equipment and lighting; water-saving measures; paper, plastic, and glass recycling initiatives; and the reduction of chemical waste through appropriate disposal and recycling.*

- *Laboratory sustainability Assessment -To find areas for improvement, the institution regularly evaluates the sustainability of its lab spaces. This entails assessing the use of sustainable techniques and materials as well as the consumption of energy, water, and waste.*
 - *Sustainable Laboratory design -When designing new laboratory spaces, the university incorporates sustainable design principles, such as: Natural lighting and ventilation this means that the labs are designed in such a way that the smart lighting system detects areas where natural it's at its strongest and adjusts the lighting accordingly. Energy-efficient equipment and systems, Sustainable materials and finishes, Flexible and adaptable laboratory layouts to reduce waste and improve efficiency.*
- <http://www.climate.sun.ac.z>

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: The University's endowment fund assets are managed by an executive management team that is partnered with Engineering and Economic management sciences, while being facilitated by the CRSES Academic Network, for all new initiatives and strategic fund creation. Although the institutions goal is to strengthen the Green Economy initiative and promises to completely divest from fossil fuels, the University still has signed contracts (since 2012) for renewable energy use with Eskom (National electricity utility company of South Africa), to become the specialization centre for renewable energy technology, and in turn still use their services for biodiesel, fossil fuel and water consumption appliances' used in generators, power plants and grey water/ irrigation systems and all other equipment and appliances not entirely supported by the renewable energy initiative.

(Internal policy for Stellenbosch University fundraising, DAR's mission, www.sun.ac.za)

(Stellenbosch University, Strategic Fund Regulation, www.sun.ac.za)

Section Total (23 out of 32)

71.88%

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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 Post Graduate Diploma in Nursing Education School of Nursing

The following table presents the individual section grades and overall institutional grade for the Post Graduate Diploma in Nursing Education School of Nursing on this nursing-school-specific Planetary Health Report Card.

| Section | Raw Score % | Letter Grade |
|---|---|--------------|
| Planetary Health Curriculum (30%) | $(50/65) \times 100 = 78.46\%$ | B+ |
| Interdisciplinary Research (17.5%) | $(14/17) \times 100 = 82.35\%$ | A- |
| Community Outreach and Advocacy (17.5%) | $(7/14) \times 100 = 50\%$ | C |
| Support for Student-led Planetary Health Initiatives (17.5%) | $(15/15) \times 100 = 100\%$ | A+ |
| Campus Sustainability (17.5%) | $(23/32) \times 100 = 71.88\%$ | B |
| Institutional Grade | $(78.46 \times 0.3 + 82.35 \times 0.175 + 50 \times 0.175 + 100 \times 0.175 + 71.88 \times 0.175) = 76.71\%$ | B+ |