Planetary Health Report Card (Medicine) 2026:

Memorial University of Newfoundland and Labrador

2025-2026 Contributing Team:

- Students (alphabetical): Ann Seety, Arista Marthyman, Briana Creed, Kaur Kirndeep (Kira) Singh, and Leah Curnew
- Faculty Mentors: Krista Mahoney, PhD, and Kathleen Mather, MSc, RD

*Primary Contact: Leah Curnew, leah.curnew@mun.ca

We acknowledge that the lands on which Memorial University's campuses are situated are in the traditional territories of diverse Indigenous groups, and we acknowledge with respect the diverse histories and cultures of the Beothuk, Mi'kmaq, Innu, and Inuit of this province.

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Summary of Findings

Overall Grade	C

Curriculum	C+

- **Summary:**
  - Memorial University's Faculty of Medicine curriculum includes planetary health didactic teaching and assessments in the core curriculum throughout Phase 1, 2, and 3. There is no official Phase 4 planetary health curriculum.
  - Planetary health topics were addressed predominantly through stand-alone lectures in the Community Engagement and Physician Competencies courses rather than being well integrated in the curriculum. Some planetary health concepts were covered in non-mandatory lectures, so concepts were not equally taught for all students. However, there were mandatory assignments for all students.
  - There are very few learning objectives associated with planetary health in the Patient courses, however, individual instructors occasionally include planetary health concepts at their discretion.
  - Subjects that were well addressed: Introduction of planetary health concepts, planetary health impact on the health system and communities, health risks associated with extreme weather, respiratory/reproductive health effects of climate change and environmental toxins, integrating environmental exposure assessments into history taking, and planetary health concerns relevant to NL.
  - Subjects that were poorly addressed: Unequal regional health impacts of climate change worldwide, emphasis on Indigenous knowledge in relation to planetary health, impact of planetary health on food systems, communication with patients about planetary health risks, and how to counsel patients on planetary health topics.
  - Memorial University's Faculty of Medicine's curriculum often does not show clinical relevance or actionable steps relating planetary health concepts into clinical practice.

Recommendations:

- Expand teaching on planetary health into Phase 4 Clerkship. This may include electives with a focus on planetary health or sustainability in healthcare.
- Embed learning objectives specific to planetary health concepts throughout the Patient courses to better integrate these concepts into the core curriculum and ensure clinical relevance of planetary health concepts are taught.
- Develop additional curriculum material in collaboration with Indigenous communities to better showcase and emphasize the importance of Indigenous knowledge of planetary health. This would ensure Memorial Faculty of Medicine's planetary health curriculum assumes a more holistic view of planetary health and its impacts.

Interdisciplinary Research	C-

- **Summary:**
  - Memorial University's Faculty of Medicine does not have a department dedicated to planetary health.
  - Memorial University's Faculty of Medicine is involved in cross-Canada planetary health-related initiatives but is not a member of any international planetary health organisations.
  - Memorial University's Faculty of Medicine lacks capacity-building initiatives on planetary health-related subjects with the local community.
  - Memorial University's Faculty of Medicine successfully hosted a half-day event that focused on planetary health, which included guest speakers.

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- **Recommendations:**
  - We recommend that Memorial University's Faculty of Medicine commit to further exploring its relationship with planetary health, which includes working towards implementing the *Association of Faculties of Medicine of Canada (AFMC) Roadmap for Planetary Health and Sustainable Health Systems for Canadian Medical Professionals,* as well as increasing capacity-building on planetary health related subjects with the local community.
  - We recommend that Memorial University's Faculty of Medicine at the minimum include a dedicated section to planetary health-related initiatives and projects under the research section of their website.
  - We recommend that Memorial University's Faculty of Medicine engage at the international level with planetary health organisations.
  - We recommend that Memorial University's Faculty of Medicine actively engage in showcasing the ongoing planetary health initiatives/projects of students and researchers through conferences and speaker series.
  - We recommend that Memorial University's Faculty of Medicine create pathways for research collaboration between students and faculty on sustainability and planetary health topics.
  - We recommend that Memorial University's Faculty of Medicine engages with communities disproportionately impacted by climate change to collaborate on research agendas.

Community Outreach and Advocacy | C

- **Summary:**
  - Memorial University of Newfoundland demonstrates several meaningful initiatives that support community engagement and planetary health outreach. The university collaborates with multiple community organizations that promote sustainable food systems and environmental stewardship, including partnerships with the Western Environment Centre of Newfoundland, Food Producers Forum, and Food First NL. These partnerships contribute to community initiatives such as composting programs, community gardens, food distribution systems, and food system education.
  - Memorial University also offers community-facing educational opportunities related to environmental sustainability and climate change. Public programming through the Memorial University Botanical Garden includes workshops on composting and sustainable practices. The university also contributes to public dialogue on climate and health through events hosted by the Newfoundland and Labrador Centre for Applied Health Research and public lectures organized by academic centres such as the Nexus Centre.
  - University communications also highlight sustainability and climate-related topics through outlets such as the Memorial University Gazette and the Sustainability Tracker. These platforms help disseminate information about environmental initiatives and research activities occurring across the institution.
  - Despite these strengths, there are still opportunities for Memorial University to strengthen its role in planetary health outreach. Currently, there is little evidence of continuing education programs specifically focused on planetary health or sustainable healthcare for practicing healthcare professionals. In addition, although some affiliated hospitals provide patient education materials about environmental health exposure, there are few publicly available resources that clearly explain how climate change affects human health.

- **Recommendations:**
  - Memorial University could strengthen its planetary health outreach by developing continuing professional education opportunities focused on planetary health and sustainable healthcare. The Faculty of Medicine could introduce continuing professional development (CPD/CME) courses that help healthcare providers understand the health impacts of climate change and learn how to integrate environmentally sustainable practices into clinical care.
  - Another important opportunity is to expand patient-facing educational resources on climate and health. Memorial University and its affiliated health services could develop accessible materials that

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explain the health impacts of climate change, including issues such as extreme heat, wildfire smoke, air quality, infectious disease patterns, and climate-related mental health impacts. These materials could be made available in hospital waiting areas, primary care clinics, and online patient education portals to help patients understand environmental health risks and ways to protect their health.

- In addition, the visibility and coordination of existing outreach initiatives could be improved. Creating a centralized webpage or platform that highlights planetary health initiatives, partnerships, and community programs could make it easier for students, healthcare providers, and community members to learn about and participate in these activities. This platform could help connect students, healthcare providers, researchers and community members with opportunities to participate in planetary health activities.

Support for Student-Led Initiatives | B

- **Summary:**
  - All students at Memorial University's Faculty of Medicine must complete one research project, in which students can choose a project in a planetary health-related subject. First- and second-year (Phase 1, 2, and 3) medical students in Memorial University's Faculty of Medicine who are interested in gaining further research experience can apply for a summer research position called Summer Undergraduate Research Awards (SURA) in which students can choose a project in a planetary health-related subject.
  - While Memorial University's Faculty of Medicine has student conference funding and travel award scholarships, there is no specific student project funding, scholarships, or conference funding for planetary health-related research.

- **Recommendations:**
  - We recommend that Memorial University's Faculty of Medicine establish specific funding for planetary health research, such as specific student project funding, scholarships, and conference funding.
  - We recommend that Memorial University’s Faculty of Medicine create resources for students who would like to connect with faculty mentors, funding and institutional support surrounding student-led planetary health initiatives.

Campus Sustainability | D+

- **Summary**: Memorial University demonstrates a commitment to sustainability through a centralized Sustainability and Climate Action Office, a transition to the use of renewable energy, energy-efficiency retrofits, and recycling/composting programs. However, Memorial University lacks a publicly approved, time-bound institutional Climate Action Plan with binding emissions targets.

- **Recommendations**:
  - Develop and publish a binding Climate Action Plan with measurable emissions targets and annual reporting.
  - Formalize sustainability requirements in procurement, food services, and university-hosted events.
  - Improve transparency and accessibility of sustainability data.
  - Create awareness campaigns for the university community to learn about and appropriately utilize sustainability practices and options on campus.

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Statement of Purpose

Planetary health is human health.

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

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

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

Definitions & Other Considerations

Definitions:

- **Planetary Health:** is described by the Planetary Health Alliance as "the health of human civilisation and the state of the natural systems on which it depends." For example, topics such as climate change, declining biodiversity, shortages of arable land and freshwater, and pollution would all fall under the realm of planetary health. Both planetary health and traditional 'environmental health' examine the relationship between human health and the external environment, including extreme temperatures, chemicals, vector-borne diseases, etc. Planetary health explicitly concerns itself with the potential health harms associated with human-caused perturbations of natural systems. Therefore, the human health focus of planetary health makes the field well-adapted for the context of health professional education. Throughout this report card, we use the term planetary health to refer to this broad

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swath of topics, but resources do not need to explicitly include the term "planetary health" to satisfy the metric.

- **Sustainable Healthcare:** As defined by the Academy of Royal Colleges, sustainable healthcare involves ensuring the ability to provide good quality care for future generations by balancing the economic, environmental, and social constraints and demands within health care settings. A sustainable healthcare system maintains population health, reduces disease burden and minimises use of healthcare services.

- **Education for Sustainable Healthcare (ESH):** is defined as the process of equipping current and future health professionals with the knowledge, attitudes, skills and capacity to provide environmentally sustainable services through health professional education, thus working to decrease the enormous environmental impact of the healthcare industry. Planetary Health Education is an integral part of this education rather than an end in itself. This is because knowledge on Planetary Health is required to be able to fully understand the necessity of sustainable healthcare as well as being part of the broader knowledge needed to fully protect and promote health. In summary, ESH is covered by the three Priority Learning Outcomes of the Centre of Sustainable Healthcare below, and Planetary Health Education is embraced in the first learning objective and is a fundamental requirement to achieve learning outcomes 2 and 3:

    1. Describe how the environment and human health interact at different levels.
    2. Demonstrate the knowledge and skills needed to improve the environmental sustainability of health systems.
    3. Discuss how the duty of a doctor to protect and promote health is shaped by the dependence of human health on the local and global environment.

- **Medical School/Department vs. Institution:** When "Medical school" is specified in the report card, this only refers to curriculum and resources offered by the School/department of Medicine and does not include offerings from other parts of the university (e.g. undergraduate departments (USA), other related departments (e.g. Public Health, Population Health departments). In contrast, when "institution" is specified in the report card, we are referring to the university more broadly including all of its campuses. Any resource reasonably accessible by medical students, no matter where in the institution the resource comes from or if it is specifically targeted for medical students, can meet this metric.

- **Environmental history (Curriculum Section):** This is a series of questions students are taught to ask during medical encounters that elicits patients' exposures and environmental risk factors. Historically, this has included consideration of exposures like pesticides, asbestos, and lead, though in the modern era shaped by climate change, it can be expanded to include things like wildfire smoke exposure, air pollution and mould after flooding. Key components include place of residence over the lifecourse, occupational history, food and water sources (e.g. meat from industrial feeding operations, regular fishing in contaminated water, access to clean drinking water), and exposure to air pollution. Please be as specific as possible when providing evidence for this metric.

- **Elective:** The word "elective" refers to an optional course or lecture series that a student can opt to take part in but is not a requirement in the core curriculum. Generally, these elective courses take place in the preclinical curriculum but vary by school.

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- **Core Curriculum:** This refers to the taught material that is delivered to the entire cohort of students in one year.

- **Clerkship / Outreach:** This is a term used in the USA to refer to placements that medical students go on e.g. Pediatrics, General medicine, Psychiatry. In the UK these are referred to as rotations, outreach or placements. This is a relatively short (approximately 4-8 weeks) period of study and patient-centred clinical experience that takes place as part of the undergraduate programme.

- **Clinical rotation:** This is a term used to refer to placements that students go on (e.g., ophthalmology, surgery, cardiology).

- **Physiotherapy vs Physical Therapy:** For the purposes of this report card these terms are considered interchangeable. However, physiotherapy will be used primarily.

- **Community organisations:** For most institutions, there are existing groups that are not directly affiliated with the university and exist as a product of what the community the institution exists in cares about or needs. These specific community organisations relevant to this report include those that are focused around some aspect of climate and health preservation. These community organisations can include but are not limited to local mutual aid initiatives, underserved-resource distribution groups, clean-up and nature conservation groups, community gardeners, and other environmental-related organisations. If your institution does not have access to local volunteerships with community groups, please report any community organisations your institution or school has collaborated with.

- **Climate justice:** The idea that certain population groups and geographical locations which are disproportionately more impacted by climate change are already economically and socially disadvantaged. This double vulnerability sits alongside pre-existing social justice concerns and should therefore shift policy and practice to mitigate the inequitable effects of the climate crisis.

- **Extractivisim:** 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.

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- **Anthropogenic:** Created through human activity

- **Marginalized communities:** Groups excluded from mainstream economic, educational, social, and/or cultural experiences due to race, gender identity, sexual orientation, age, physical ability, language, and/or immigration status (Sevelius et al., 2020).

Scoring Matrix

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

Other considerations:

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

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

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Planetary Health Curriculum

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

Curriculum: General

1.1. Did your medical school offer elective courses (student selected modules) to engage students in Education for Sustainable Healthcare or Planetary Health in the last year?	
Yes, the medical school has offered **more than one** elective whose primary focus is ESH/planetary health in the past year. (3 points)	
Yes, the medical school has offered **one** elective whose primary focus is ESH/planetary health in the past year. (2 points)	
The medical school does **not** have any electives whose primary focus is ESH/planetary health, but there are one or more electives that include a **lecture** on planetary health. (1 point)	
No, the medical school has **not** offered any electives on planetary health or electives that include ESH/planetary health topics in the past year. (0 points)	
Score Assigned:	0
Score explanation: Memorial University's Faculty of Medicine does not offer education for sustainable healthcare or planetary health. The current planetary health course consists of a lecture and an associated assignment within the core curriculum, there are no dedicated elective courses on sustainable healthcare or planetary health topics.	

Curriculum: Health Effects of Climate Change

1.2. Does your medical school curriculum address the relationship between extreme heat, health risks, and climate change?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	3

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Score explanation: In Phase 1 (Year 1), there is one non-mandatory 2 hour lecture titled "Planetary Health," delivered by Dr. Laurie McDuffee and Dr. William Montelpare. This included an exploration of climate change and its health effects, with specific slides on the adverse health effects of climate change. This content was assessed in a graded planetary health group assignment where students had to prepare a presentation discussing a planetary health issue, such as climate change, and suggest an action plan for addressing this problem. Associated learning objectives include 12330, 12331, 12332, 12333, 12334, and 12335.

In Phase 3 (Year 2), there are 3 mandatory lectures on planetary health topics in the core curriculum. Each lecture is 2 hours long. The lecture on environmental health provided by Dr. Atanu Sarkar discussed the implications of environmental hazards and climate change on health, including extreme weather, forest fire, and the associated health risks. There were specific slides on extreme heat. There was also a graded assignment where small groups of students were asked to come up with plans to mitigate health impacts of extreme weather (forest fire) on a rural community. The lecture on physicians in a changing climate and environment lecture, provided by Dr. Delphine Grynszpan, contained a case based learning session on the physician's role in increasing the resilience of their patients and communities to environmental hazards such as extreme heat. The lecture on emergency response and preparedness also by Dr. Delphine Grynszpan discussed the process of preparing for and mitigating the health impacts of climate change using the example of extreme heat and forest fires. There was also a graded assignment where small groups of students summarized their suggestions for improving community resilience to these hazards. Associated learning objectives include 12276, 12277, 10673, and 12345 (https://www.med.mun.ca/ugmecurriculum/)

There are no associated learning objectives for Phase 4: Clerkship (Year 3 and 4).

1.3. Does your medical school curriculum address the impacts of extreme weather events on individual health and/or on healthcare systems?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	3
Score Explanation: In Phase 1 (Year 1), the 2 hour "Planetary Health" lecture delivered by Dr. Lauree McDuffee and Dr. William Montelpare briefly discussed the negative health impacts and reversal of public health gains due to extreme weather events related to climate change. The effects of climate catastrophes on planetary health was also a topic students could choose to focus their graded planetary health presentation on. Associated learning objectives include 12330, 12331, 12332, 12333, 12334, and 12335. *In Phase 3 (Year 2), the lecture on environmental health provided by Dr. Atanu Sarkar discussed the implications of environmental hazards and climate change on health, including extreme weather and its association with illness and rare pathogens. There was also a graded assignment where small groups of students were asked to come up with plans to mitigate health impacts of*	

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extreme weather on a rural community. The lecture on physicians in a changing climate and environment, provided by Dr. Delphine Grynszpan, contained a case based learning session on the physician's role in increasing the resilience of their patients and the health system to environmental hazards such as extreme weather events. The lecture on emergency response and preparedness also by Dr. Delphine Grynszpan discussed the process of preparing for and mitigating the health impacts of climate change using the example of extreme heat and forest fires. There was also a graded assignment where small groups of students summarized their suggestions for improving community resilience to these hazards that discussed preparation at the health system level. Associated learning objectives include 12276, 12277, 12344, 10673, 12346, and 12345 (https://www.med.mun.ca/ugmecurriculum/).

There are no associated learning objectives for Phase 4: Clerkship (Years 3 and 4)

1.4. Does your medical school curriculum address the impact of climate change on the changing patterns of infectious diseases?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	2

Score explanation: In Phase 1 (Year 1), the non-mandatory "Planetary Health" lecture provided by Dr. Laurie McDuffee and Dr. William Montelpare contained two slides that specifically noted infectious zoonotic diseases as an adverse effect of climate change and discussed the need for a multidisciplinary team to address infectious diseases and pandemics related to climate change. Associated learning objectives include 12330, 12331, 12332, 12333, 12334, and 12335..

Phase 2 (Year 1), the lecture titled "Emerging Viruses" addresses the impact of ecological changes and deforestation on the changing patterns of viral infections. Associated learning objectives include 11288, and 12395.

In Phase 3 (Year 2), the 2-hour mandatory lecture on environmental health by Dr. Atanu Sarkar contained one slide on the impact of climate change on infectious disease patterns. There are no specific learning objectives in Phase 3 associated with this, only general learning objectives such as 12276.

There are no associated learning objectives for Phase 4: Clerkship (Year 3 and 4)

1.5. Does your medical school curriculum address the respiratory health effects of climate change and air pollution?
This topic was explored **in depth** by the **core** curriculum. (3 points)
This topic was **briefly** covered in the **core** curriculum. (2 points)

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This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	3

Score explanation: In Phase 1 (Year 1), the 2-hour non-mandatory "Planetary Health" lecture from Dr. Laurie McDuffee and Dr. William Montelpare contained one slide that listed respiratory diseases as a negative health impact of climate change. Associated learning objectives include 12330, 12331, 12332, 12333, 12334, and 12335.

In Phase 2 (Year 1), the lecture titled "Clinical Aspects of Lung Cancer" lists air pollution as a risk factor for lung cancer. The associated learning objective is 9471. During teaching sessions on Respiratory history taking and physical exams, there is teaching for us to link various respiratory health diseases with environmental risk factors.

In Phase 3, the 2-hour mandatory lecture on environmental health by Dr. Atanu Sarkar discussed the respiratory health effects of climate change and pollution in depth, identifying specific pollutants indoors and outdoors and their specific manifestations in pregnancy complications, respiratory symptoms, cardiovascular diseases and cancers. There was also a 1-hour testable lecture on xenobiotics by Dr. Ed Randell with a slide on the link between emissions from the fossil fuel industry and other pollutants and lung cancer/other diseases. There were also mentions of respiratory health effects of climate change and pollution in the testable lectures on burns, and work-related health issues. Associated learning objectives include 8588, 11893, 11883, 10790, 12276, and 10673.

1.6. Does your <u>medical school</u> curriculum address the cardiovascular health effects of climate change, including increased heat?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	2

Score explanation: In Phase 1 (Year 1), the "Planetary Health" lecture provided by Dr. Laurie McDuffee and Dr. William Montelpare contained one slide that listed cardiovascular disease and heat stroke as negative impacts of climate change on human health. Associated learning objectives include 12330, 12331, 12332, 12333, 12334, and 12335.

In Phase 3, there is a 2-hour mandatory lecture on environmental health provided by Dr. Atanu Sarkar with 2 slides that discuss the impacts of climate change and pollution on cardiovascular health. There were no specific learning objectives on this topic in Phase 3, only general ones like 12276.

1.7. Does your <u>medical school</u> curriculum address the mental health and neuropsychological

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effects of environmental degradation and climate change?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	2
Score explanation: In Phase 1 (Year 1), the "Planetary Health" lecture delivered by Dr. Laurie McDuffee and Dr. William Montelpare notes negative mental health impacts as a result of climate change. The lecture explores how climate change damages natural environments that provide respite for human mental health and how individuals may suffer from solastalgia, homesickness in relation to the loss of place due to negative environmental change. Students could also choose to focus their graded planetary health presentation assessment on the emotional distress and mental health outcomes of planetary health change. Associated learning objectives include 12330, 12331, 12332, 12333, 12334, and 12335. *In Phase 3, there is a 2-hour mandatory lecture on environmental health provided by Dr. Atanu Sarkar with two slides that discuss the potential impacts of climate change on mental health, including climate anxiety. There were no specific learning objectives on this topic in Phase 3, only general ones like 12276.*	

1.8. Does your <u>medical school</u> curriculum address the relationships between health, individual patient food and water security, ecosystem health, and climate change?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	2
Score explanation: In Phase 1 (Year 1), a 2-hour non-mandatory "Planetary Health" lecture provided by Dr. Laurie McDuffee and Dr. William Montelpare lists malnutrition as a negative impact of climate change and notes the importance of balanced ecosystems in maintaining food chains and biodiversity. The lecture also clearly explores the impact of biodiversity and ecosystem loss on human health including reductions in animal and plant foods. Students could also choose to focus their graded planetary health presentation assessment on the loss of biodiversity and the effects on human health. Associated learning objectives include 12330, 12331, 12332, 12333, 12334, and 12335. *In Phase 3, there is a 2-hour mandatory lecture on environmental health provided by Dr. Atanu Sarkar with several slides that discuss water pollution and the impacts of climate change and pollution on water systems. There was significant discussion on how climate change and pollution will impact health through this lecture. In the lecture on obesity in childhood provided by Dr.*	

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Tracey Bridger, there are a few slides on how obesity, undernutrition, food systems and planetary health are linked. There were no specific learning objectives on this in Phase 3.

1.9. Does your medical school curriculum address the outsized impact of climate change on marginalised populations such as those with low SES, women, communities of colour, Indigenous communities, children, homeless populations, and older adults?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	2
Score explanation: The "Planetary Health" lecture in Phase 1 (Year 1) delivered by Dr. Laurie McDuffee and Dr. William Montelpare contained two slides briefly discussing the disproportionate impacts of climate change and its health effects on marginalized populations such as those living in poverty and refugees. The associated learning objectives were 12330 and 12332. There is also a 2 hour non-mandatory "Global Health" lecture that has one slide mentioning that refugees are increasingly vulnerable to climate change. There were no specific learning objectives relating this lecture to planetary health, but was covered under objectives 7343 and 7344. *In Phase 3, there is a 2-hour mandatory lecture on environmental health provided by Dr. Atanu Sarkar with one slide mentioning the disproportionate impact of climate change on marginalized populations. There were also mentions of environmental impacts on pregnant women and children through pollutants and teratogens in the Recurrent Pregnancy Loss, Antepartum Care/Perinatal Mental Health, and Infertility lectures. Associated learning objectives include 6801, 10673, and 12345. There are no specific learning objectives on this topic in Phase 4. No assignment associated, only a few lecture slides that were minimally explained.*	

1.10. Does your medical school curriculum address the unequal regional health impacts of climate change globally?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	0
Score explanation: This topic was not covered in Memorial University's Faculty of Medicine curriculum.	

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

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1.11. Does your medical school curriculum address the reproductive health effects of industry-related environmental toxins (e.g. air pollution, pesticides, microplastics)?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	3
Score explanation: In Phase 3, there is a 2-hour mandatory lecture on environmental health provided by Dr. Atanu Sarkar contained one slide on air pollution and the impact on pregnancy. This was also covered in lectures on recurrent pregnancy loss, antepartum care/perinatal mental health, infertility, work-related health issues and multifactorial inheritance. Associated learning objectives include 6801, 6426, 8402, 8403, 8587, 8588, 10673, and 12345. There are no specific learning objectives on this topic in Phase 1, 2, or 4.	

1.12. Does your medical school curriculum address important human-caused environmental threats that are relevant to the university's surrounding community?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	3
Score explanation: In Phase 2, students are taught in Clinical Skills - History Taking to ask about respiratory conditions related to work with asbestos, silica, crab plants, molds, and industrial chemicals. These are all relevant to the NL community and work environments many are exposed to in the university community. Associated learning objectives include 10824 and 10812. *In Phase 3, there is a 2-hour mandatory lecture on environmental health provided by Dr. Atanu Sarkar which discusses the impact of mines and fisheries on the health of NL communities, especially rural communities and their water sources. This lecture also discussed common indoor pollutants such as tobacco toxins, asbestos, and common building materials that are environmental hazards negatively impacting health at the university and in local communities. Learning objectives include 10675, 12346, 12347, and 12348. There are no specific learning objectives for Phase 4.*	

1.13. To what extent does your medical school emphasise the importance of Indigenous knowledge and value systems as essential components of planetary health solutions?
This topic was explored **in depth** by the **core** curriculum. (3 points)
This topic was **briefly** covered in the **core** curriculum. (2 points)

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This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	2
Score explanation: In Phase 1 (Year 1), the 2 hour non-mandatory "Planetary Health" lecture provided by Dr. Laurie McDuffee and Dr. William Montelpare clearly recognizes the importance of Indigenous ways of knowing and approaches to conserving biodiversity. The lecture notes that Indigenous knowledge includes the belief that human life and the environment are explicitly connected and should exist in harmony. However, this was minimally discussed in the general topic and could be emphasized much more in the medical curriculum. It is not mentioned in Phase 2, 3 or 4. Associated learning objectives include 12330, 12332, 12334, and 12335.	

1.14. Does your <u>medical school</u> curriculum address the outsized impact of anthropogenic environmental toxins on marginalised populations such as those with low SES, women, communities of colour, children, homeless populations, Indigenous populations, and older adults?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	2
Score explanation: In Phase 1 (Year 1), the 2 hour non-mandatory "Planetary Health" lecture provided by Dr. Laurie McDuffee and Dr. William Montelpare contained one slide that notes how marginalized and underserved populations are the most impacted by anthropogenic environmental changes. The associated learning objectives include 12330, 12331, 12332, and 12335. *In Phase 3, there is a 2-hour mandatory lecture on environmental health provided by Dr. Atanu Sarkar with one slide mentioning the disproportionate impact of common indoor pollutants on Indigenous and low-SES households. No specific learning objectives in Phase 3 or 4.*	

Curriculum: Sustainability

1.15. Does your <u>medical school</u> curriculum address the environmental and health co-benefits of a plant-based diet?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 point)	
Score Assigned:	0

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Score explanation: This topic is not discussed in Memorial University's Faculty of Medicine curriculum.

1.16. Does your <u>medical school</u> curriculum address the carbon footprint of healthcare systems?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	2
Score explanation: In Phase 1 (Year 1), the non-mandatory lecture titled "Planetary Health," provided by Dr. Laurie McDuffee and Dr. William Montelpare briefly explores the carbon footprint of healthcare and how the concept of greening healthcare to reduce the environmental impact of the healthcare system. Greening of healthcare was also a topic students could explore in their graded planetary health group presentation. Associated learning objectives include 12330, 12332, 12334, and 12335. This topic is not mentioned in Phase 2, 3 or 4.	

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

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Score explanation: Throughout many aspects of the curriculum there has been intentional teaching on Choosing Wisely, the practice framework aimed at reducing unnecessary interventions and pharmaceuticals for patients. This has been scattered throughout many lectures, including the lectures on Antibiotic Resistance, radiology, hematology, and cardiology. There was also a non-mandatory "Planetary Health" lecture by Dr. Laurie McDuffee and Dr. William Montelpare in Phase 1 (Year 1) discussing the benefits and processes for social prescribing and using nature as therapy as an important aspect of non-pharmacological intervention. Furthermore, Dr. Jill Allison provided an additional lecture and optional lunch event about the benefits and processes of social prescribing. The associated learning objectives include 12330, 12332, 12334, and 12335. There are no specific learning objectives on this in Phase 3 or 4.

Curriculum: Clinical Applications

1.18. In training for patient encounters, does your <u>medical school's</u> curriculum introduce strategies to have conversations with patients about the health effects of climate change?	
Yes, there are strategies introduced for having conversations with patients about climate change in the **core** curriculum. (2 points)	
Yes, there are strategies introduced for having conversations with patients about climate change in **elective** coursework. (1 point)	
No, there are **not** strategies introduced for having conversations with patients about climate change. (0 points)	
Score Assigned:	0
Score explanation: Strategies for discussing climate change with patients have not been taught throughout Memorial University's Faculty of Medicine curriculum.	

1.19. In training for patient encounters, does your <u>medical school's</u> curriculum introduce strategies for taking an environmental history or exposure history?	
Yes, the **core** curriculum includes strategies for taking an environmental history. (2 points)	
Only **elective** coursework includes strategies for taking an environmental history. (1 point)	
No, the curriculum does **not** include strategies for taking an environmental history. (0 points)	
Score Assigned:	2
Score explanation: In Phase 2 and Phase 3 clinical skills sessions, learners are taught to take a full history, which includes specific questions on exposure to asbestos, lead, silica, mining, various animals, tobacco smoke, mold, pesticides and other pollutants. Learners are also taught to ask about the current and past places of residence, occupational history, and travel history related to environmental exposures. There are no associated learning objectives in Phase 2, 3 or 4.	

Curriculum: Administrative Support for Planetary Health

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1.20. Is your medical school currently in the process of implementing or improving Education for Sustainable Healthcare (ESH)/planetary health education?	
Yes, the medical school is currently in the process of making **major** improvements to ESH/planetary health education. (4 points)	
Yes, the medical school is currently in the process of making **minor** improvements to ESH/planetary health education. (2 points)	
No, there are **no** improvements to planetary health education in progress. (0 points)	
Score Assigned:	2
Score explanation: Memorial University's Faculty of Medicine has signed the Academic Health Institutions' Declaration on Planetary Health, which calls on academic health institutions to take immediate actions to address the negative impact of their activities on planetary health (https://www.afmc.ca/initiatives/planetaryhealthdeclaration/). *Memorial University's Faculty of Medicine has also included a commitment to developing and integrating planetary health competencies into the curriculum as noted in the Memorial University's Faculty of Medicine Strategic Plan 2024-2027 (https://www.mun.ca/medicine/media/production/medicine/documents/MUN%20FoM_Strategic%20Plan2024.pdf).*	

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

1.22. Does your medical school employ a member of faculty to specifically oversee and take responsibility for the incorporation of planetary health and sustainable healthcare as a theme throughout the course?
Yes, the **medical school** has a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare. (1 point)

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No, the **medical school** does **not** have a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare. (0 points)	
Score Assigned:	1
Score explanation: Yes. Memorial University's Faculty of Medicine employs Dr. Atanu Sarkar as the Planetary Health Undergraduate Medical Education Lead.	

1.23. Does your health professional curriculum include teaching on civic engagement/advocacy to address the environmental and structural determinants of health?	
This topic was explored **in depth** by the **core** curriculum. (3 points)	
This topic was **briefly** covered in the **core** curriculum. (2 points)	
This topic was covered in **elective** coursework. (1 point)	
This topic was **not** covered. (0 points)	
Score Assigned:	2
Score explanation: In Phase 3 (Year 2), the lecture on environmental health provided by Dr. Atanu Sarkar discussed the role of the physician in advocacy and community engagement to address environmental issues. There was also a graded assignment where small groups of students were asked to come up with plans to mitigate health impacts of extreme weather on a rural community. The lecture on physicians in a changing climate and environment, provided by Dr. Delphine Grynszpan, contained a case-based learning session on the physician's role in increasing the resilience of their patients and the health system to environmental hazards such as extreme weather events. The lecture on emergency response and preparedness, also by Dr. Delphine Grynszpan, discussed the process of preparing for and mitigating the health impacts of climate change using the example of extreme heat and forest fires. There was also a graded assignment where small groups of students summarized their suggestions for improving community resilience to these hazards that discussed preparation at the health system level. None of these lectures discussed addressing structural determinants of health nor strategies to engage with public policy or advocacy. Associated learning objectives include 10673, 12276, 12277, 12344, 12345,12346, 12347, and 12348 (https://www.med.mun.ca/ugmecurriculum/). There are no associated learning objectives for Phase 4: Clerkship.	

Section Total (44 out of 75)	**58.66%**

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Interdisciplinary Research

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

2.1. Are there researchers engaged in planetary health research and healthcare sustainability research at your institution?	
Yes, there are faculty members at the **institution** who have a **primary** research focus in planetary health **or** sustainable healthcare/vetcare. (3 points)	
Yes, there are individual faculty members at the **institution** who are conducting research **related** to planetary health or healthcare sustainability, OR are part of a national/international sustainability working group, but it is not their primary research focus. (2 points)	
There are sustainability researchers at the **institution**, but not specifically associated with healthcare/vetcare. (1 point)	
No, there are **no** planetary health and/or sustainability researchers at the **institution** at this time. (0 points)	
Score Assigned:	3
Score explanation: There are researchers at Memorial University's Faculty of Medicine whose primary research focuses on planetary health and/or sustainable health care. There are also researchers in the faculty who collaborate with Quality of Care NL on planetary health research projects and their results have been published in Quality of Care NL's "Practice Points". *Examples:* *https://www.mun.ca/medicine/faculty-and-staff-resources/faculty-a-z/sarkar-atanu.php* *https://qualityofcarenl.ca/practice-points/*	

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)

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There is an **Occupational and Environmental Health department**, but no interdisciplinary department or institute for planetary health research. (1 point)	
There is **no** dedicated department or institute. (0 points)	
Score Assigned:	1
Score explanation: Memorial University's Faculty of Medicine does not have a dedicated department or institute for interdisciplinary planetary health research. There are no current plans for the implementation of a department or institute for interdisciplinary planetary health within the faculty. While no such department or institute currently exists, the faculty has a Division of Population Health and Applied Health Sciences, which oversees research and programs that include planetary health. For example, the Division of Population Health and Applied Health Sciences contains researchers who have a primary focus on planetary healthcare and offers a graduate course called Environmental Health (MED6722) that includes content on planetary health.	

2.3. Is there a process by which communities disproportionately impacted by climate change and environmental injustice give input or make decisions about the research agenda at your institution?	
Yes, there is a process in which community members impacted by climate and environmental injustice have **decision-making power** in the climate + environmental research agenda. (3 points)	
Yes, there is a process in which community members impacted by climate and environmental injustice **advise** the climate + environmental research agenda. (2 points)	
No, but there are **current efforts** to establish a process for community members to advise or make decisions on the research agenda. (1 point)	
There is **no** process, and **no** efforts to create such a process. (0 points)	
Score Assigned:	0
Score explanation: This does not currently exist on any form easily found and accessed by students and community members, despite access to NL SUPPORT (Newfoundland and Labrador's Support for People and Patient-Oriented Research and Trials Unit), which offers services to help researchers and organisations connect and work with local communities.	

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)

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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:	1
Score explanation: Memorial University's Faculty of Medicine does not have a website dedicated to planetary health. In addition, the faculty's website, as well as the Division of Population Health and Applied Health Sciences's, Division of BioMedical Science's, and each of the clinical disciplines websites, do not include "planetary health," "climate change," "environmental health," or related headings under the research portion of their website. Although Memorial University has a website called "Sustainability and Climate Action Office" which has an online form aimed at collecting information on the work those in the university are doing with respect to sustainability, it does not include a comprehensive overview of ongoing research, projects, and resources — there is no content listed from the Faculty of Medicine. *Link to the "Sustainability and Climate Action Office" website:* https://www.mun.ca/sustainability/about-us/	

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:	1
Score explanation: In November 2025, Memorial University's Faculty of Medicine Planetary Health Interest Group of undergraduate medical learners organized a half-day webinar with a series of guest speakers. Funding for this event was provided by Dr. Atanu Sarkar (faculty member in the Division of Population Health and Applied Health Sciences at Memorial University's Faculty of Medicine) and Canadian Association of Physicians for the Environment (CAPE NL). Please note that Memorial University's Medical Students' Society (MUN MedSoc) provides a small amount ($100-200; varies each year depending on available funds) of funding to interest groups. In addition, students in Memorial University's Faculty of Medicine have the option to present planetary health research at the annual Medical Student Research Forum.	

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2.6. Is your institution a member of a national or international planetary health or ESH/ESV organisation?	
Yes, the institution is a member of a national or international planetary health **or** ESH/ESV organisation. (1 point)	
No, the institution is **not** a member of such an organisation. (0 points)	
Score Assigned:	1
Score explanation: Memorial University's Faculty of Medicine is a member of the Association of Faculties of Medicine of Canada (AFMC) which is a national organisation. The AFMC has a Committee on Planetary Health which has a "Declaration on Planetary Health" and has created an AFMC Roadmap for Planetary Health and Sustainable Health Systems for Canadian Medical Professionals (https://www.afmc.ca/wp-content/uploads/2025/09/AFMC-Roadmap-on-Planetary-Health-EN-Reformatted.pdf). Memorial University's Faculty of Medicine currently has no involvement with international planetary health organizations.	

Section Total (7 out of 17)	**41.18%**

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Community Outreach and Advocacy

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

3.1. Does your institution partner with community organisations to promote planetary and health?	
Yes, the **institution** meaningfully partners with **multiple** community organisations to promote planetary and environmental health. (3 points)	
Yes, the **institution** meaningfully partners with **one** community organisation to promote planetary and environmental health. (2 points)	
The **institution** does not partner with community organisations, but participates in community focused events relating to planetary health. (1 point)	
No, there is **no** such meaningful community partnership. (0 points)	
Score Assigned:	2
Score explanation: While undergraduate courses at Memorial University (especially Environmental Science and Environment & Sustainability) do not mandate student engagement with community organisations through required coursework, graduate programs such as the MA in Environmental Policy include a required internship component that involves external organisational engagement. Students in other programs may also independently seek community-based research or practicum experiences, but these are not formal course requirements according to publicly available environmental science/course descriptions. *MUN partnered with the Food Producers Forum group who are a non-profit organization seeking to support gardeners, farmers and foragers to produce and distribute more local foods. Projects led by Food Producers Forum include food distribution systems for aggregation, storage and distribution of local foods, education systems, building greenhouses and creating local food survey reports.* *Memorial University also partners with the Western Environment Centre of NL which provides educational resources, community events, workshops, etc. about environmental topics and building skills to create a more regenerative food system (https://mun.ca/grenfellcampus/departments--services/facilities-management--ancillary-services/green-initiatives/). This group also creates programs and projects for community composting, community greenhouses, community gardens, and a seed library. However, we do not count this in*	

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our scoring due to its location at the Grenfell Campus of MUN and this report only assesses the St. John's campus.

3.2. Does your institution offer community-facing courses or events regarding planetary health?	
The **institution** offers community-facing courses or events at least once every year. (3 points)	
The **institution** offers courses or events open to the community at least once per year, but they are not primarily created for a community audience. (2 points)	
The **institution** has promoted community-facing courses or events, but was not involved in planning those courses or events. (1 point)	
The **institution** has not offered such community-facing courses or events. (0 points)	
Score Assigned:	3

Score explanation: Memorial University of Newfoundland offers several public-facing events and outreach initiatives aimed at improving awareness of planetary health, climate change, and their impacts on human health. For example, the Climate Change & Health Research and Knowledge Exchange (RKE), hosted by the Newfoundland and Labrador Centre for Applied Health Research, brings together researchers, clinicians, policymakers, and community members to discuss climate-related health risks and adaptation strategies. Public panel discussions have addressed topics such as wildfire smoke and respiratory health. (https://www.mun.ca/botanicalgarden/learn/climate-collective).

Memorial University also engages the community through educational initiatives such as free composting workshops offered through the Botanical Gardens. In addition, the Climate Collective project works to build a collaborative network within the climate innovation sector and increase youth capacity for climate action. (https://www.mun.ca/botanicalgarden/whats-on/workshops/backyard-composting/).

Further public engagement occurs through lectures hosted by the Nexus Centre in the Faculty of Humanities and Social Sciences, which occasionally feature environmental experts from the Geography department. For example, a recent lecture on environmental topics was held in November 2025.

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)

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Students **do not** receive communications about planetary health or sustainable healthcare. (0 points)	
Score Assigned:	1
Score explanation: Memorial University Gazette regularly publishes university-wide updates on a broad range of topics, including planetary health, climate change, environmental sustainability, and sustainable healthcare. Coverage includes ongoing reporting on the health impacts of environmental change, climate-related research, sustainability initiatives, and community-linked climate action across the research, campus and community, and student life sections. In addition, Memorial University maintains a Sustainability Tracker, which publicly reports on institutional sustainability goals, initiatives, and progress, further reinforcing regular communication on environmental responsibility and climate action within university update communications (https://gazette.mun.ca/tag/sustainability/).	

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: Memorial University of Newfoundland offers continuing professional development and continuing medical education (CPD/CME) opportunities for post-graduate healthcare providers through the Faculty of Medicine's Office of Professional & Educational Development. These CPD/CME offerings include multiple online courses, such as Professionalism in Practice and Providing Culturally Safe Health Care for Indigenous Patients in Newfoundland and Labrador. However, there is no clear evidence of existing professional education activities with a primary focus on planetary health or sustainable healthcare.	

3.5. Does your institution or its affiliated teaching hospitals have accessible educational materials for patients about environmental health exposures?
Yes, the **institution** or **all affiliated hospitals** have accessible educational materials for patients. (2 points)
Some affiliated hospitals have accessible educational materials for patients. (1 point)
No affiliated medical centres have accessible educational materials for patients. (0 points)

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Score Assigned:	1
Score explanation: A review of publicly accessible patient education resources from Memorial University of Newfoundland and NL Health Services identified general environmental health information provided by Eastern Health (e.g., guidance on air quality, water quality, contaminants, and exposure risks (https://hi.easternhealth.ca/healthy-communities/environmental-health/). These resources address environmental health exposures relevant to community health and are accessible to patients. Therefore, some affiliated hospitals/health services have accessible educational materials on environmental health exposures, corresponding to a score of 1 point for this metric.	

3.6. Does your institution or its affiliated teaching hospitals have accessible educational materials for patients about the health impacts of climate change?	
Yes, the **institution** or **all affiliated hospitals** have accessible educational materials for patients. (2 points)	
Some affiliated hospitals have accessible educational materials for patients. (1 point)	
No affiliated hospitals have accessible educational materials for patients. (0 points)	
Score Assigned:	0
Score explanation: A review of publicly accessible patient education resources from Memorial University of Newfoundland and its affiliated teaching hospitals within NL Health Services identified general environmental health information, including resources provided by Eastern Health on environmental health topics. However, no patient-facing materials were identified that explicitly address the health impacts of climate change, such as the effects of extreme heat, climate-related natural disasters, changing patterns of infectious disease, or climate-associated mental health impacts. As a result, the institution and its affiliated health services do not currently meet the criteria for this metric.	

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

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Support for Student-Led Planetary Health Initiatives

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

4.1. Does your institution offer support for students interested in enacting a sustainability initiative/QI project?	
Yes, the **institution** *either* offers grants for students to enact sustainability initiatives/QI projects *or* sustainability QI projects are part of the core curriculum. (2 points)	
The **institution** encourages sustainability QI projects (to fulfil clerkship or longitudinal requirements) and offers resources to help students succeed in these projects, **but** there is no student funding available and there is no requirement to participate. (1 point)	
No, the **institution** does not offer opportunities or support for sustainability initiatives or QI projects. (0 points)	
Score Assigned:	0
Score explanation: Memorial University's Faculty of Medicine does not offer grants for sustainability initiatives or QI projects and these are not part of the core curriculum. In addition, while Memorial University's Faculty of Medicine has student conference funding and travel award scholarships, there is no specific student project funding, scholarships, or conference funding for planetary health-related research.	

4.2. Does your institution offer opportunities for students to do research related to planetary health and/or sustainable healthcare/vetcare?	
The **institution** has a **specific** research program or fellowship for students interested in doing planetary health/sustainable healthcare/vetcare research. (2 points)	
There are research opportunities for students to perform research related to planetary health/sustainable healthcare, but these **require student initiative** to seek them out and carry them out in their spare time. (1 point)	
There are **no opportunities** for students to engage in planetary health/sustainable healthcare research. (0 points)	
Score Assigned:	1
Score explanation: There are opportunities for medical students to pursue research in planetary health, however, those research opportunities require students to reach out to faculty specifically and there is no organized research stream or department in these topics. For example, all students at Memorial University's Faculty of Medicine must complete one research project, in which	

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students can choose a project in a planetary health-related subject. In addition, first- and second-year (Phase 1,2, and 3) medical students in Memorial University's Faculty of Medicine can apply for a summer research position called Summer Undergraduate Research Awards (SURA) in which students can choose a project in a planetary health-related subject.

4.3. Does the institution have a webpage where students can find specific information related to planetary health and/or sustainable healthcare/vetcare activities and mentors within the institution? For example, projects achieved, current initiatives underway at the medical school and/or contact of information of potential mentors.	
The **institution** has a webpage with specific information related to planetary health or sustainable healthcare/vetcare that includes up-to-date information on relevant initiatives and contact information of potential mentors. (2 points)	
There is an **institution** webpage that features some information on projects and mentors within planetary health and sustainable healthcare within the institution, but it lacks key information. (1 point)	
There is **no institution** specific webpage for locating planetary health and/or sustainable healthcare projects or mentors. (0 points)	
Score Assigned:	2
*Score explanation: Memorial University of Newfoundland maintains a centralized **Sustainability and Climate Action Office** webpage (https://www.mun.ca/sustainability/goals/) that provides detailed information about institutional sustainability initiatives, climate action priorities, and strategic environmental goals. The website outlines specific initiatives and measurable goals aligned with institutional commitments and the United Nations Sustainable Development Goals (SDGs). Under each goal area, the webpage provides descriptions of relevant actions and initiatives, including research activities already undertaken that align with those priorities. The site also highlights public engagement efforts, campus-wide programs, and community partnerships connected to sustainability and climate action. Additionally, the webpage includes a dedicated contact section, allowing individuals to connect directly with the Sustainability and Climate Action Office. Associated units such as the Newfoundland and Labrador Centre for Applied Health Research (NLCAHR) also provide climate and health research information and contact details for further involvement.Together, these institutional webpages provide up-to-date information on sustainability initiatives, goals, related research activities, public engagement opportunities, and clear contact pathways.*	

4.4. Does your institution have registered student groups dedicated towards fostering a culture of planetary health engagement, scholarship, and advocacy on campus, supported by faculty advisors?
Yes, there is a student organisation **with faculty support** at my institution dedicated to planetary health or sustainability in healthcare. (2 points)

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Yes, there is a student organisation at my institution dedicated to planetary health or sustainability in healthcare but it **lacks faculty support.** (1 point)	
No, there is **not** a student organisation at my institution dedicated to planetary health or sustainability in healthcare. (0 points)	
Score Assigned:	2
Score explanation: The Planetary Health Interest Group at Memorial University's Faculty of Medicine is a medical student-led group focused on planetary health initiatives. It has faculty support from Dr. Atanu Sarkar, a planetary health researcher in Memorial University's Faculty of Medicine.	

4.5. Is there a student liaison representing sustainability interests who serves on a <u>department or institutional</u> decision-making council to advocate for curriculum reform and/or sustainability best practices?	
Yes, there is a student representative who serves on a department or institutional decision-making council/committee. (1 point)	
No, there is no such student representative. (0 points)	
Score Assigned:	0
Score explanation: Memorial University's Faculty of Medicine has a committee on sustainability with student representatives from all campuses. However, this committee is currently inactive as the terms of reference are being renewed.	

4.6. In the past year, has the <u>institution</u> had one or more co-curricular planetary health programs or initiatives in the following categories? (1 point each)	**Score**
Projects where students are able to gain experience in organic agriculture and sustainable food systems, such as gardens, farms, community supported agriculture (CSA), fishery programs, or urban agriculture projects.	1
Panels, speaker series, or similar events related to planetary health that have students as an intended audience.	1
Events in which students learn directly from members of a local environmental justice community about the climate and environmental challenges they face, and how health professionals can partner with their community to address these exposures and impacts.	1
Cultural arts events, installations or performances related to planetary health that have students as an intended audience.	1
Local volunteer opportunities related to building community resilience to anthropogenic environmental impacts.	1

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Wilderness or outdoors programs (e.g., that organise hiking, backpacking, kayaking, or other outings for students)	0

Score explanation:

- *Memorial University operates a Community Garden open to students, faculty, and staff, providing experiential learning opportunities in sustainable food production. The garden is supported by the Sustainability and Climate Action Office and works in partnership with the Botanical Garden's composting initiatives, allowing students to participate in local food systems and closed-loop waste practices. (LINK: Community Garden Food Systems)*
- *Memorial's Sustainable Development Goals include institution-hosted climate learning/engagement events such as "Take Action!" Youth Climate Summit (LINK: SDG13 Climate Action).*
- *Under SDG4 (Quality Education), Memorial University highlights experiential and community-based learning opportunities that engage students beyond the classroom, including programming that connects students with community partners to address real-world challenges. Under SDG16 (Peace, Justice, and Strong Institutions), the university reports initiatives that promote inclusive decision-making, community collaboration, and partnerships addressing social and environmental issues. (LINKS: SDG4 and SDG16)*
- *Memorial University supports community-engaged climate and environmental health learning through initiatives such as the Newfoundland and Labrador Centre for Applied Health Research (NLC AHR), which partners with various groups and communities to address climate change and health impacts. (LINK: Climate Change)*
- *Memorial has campus cultural programming themed around nature/environment, including art installations in the Botanical Garden, like "Windows on the Garden". There are also environment film/culture events through Memorial-affiliated venues such as Climate Collective film festivals at the Geo Centre. (LINK: Windows on the Garden Geo Centre)*
- *Students may volunteer with the Botanical Garden in environmental stewardship activities including conservation work and clean-ups. (LINK: Friends of the Garden)*
- *The MUN Outdoor Adventure Society organizes hiking, camping, and outdoor excursions open to students. This is student-run and not institution-based, so it would not be considered in scoring (LINK: MUN OAS)*

Section Total (10 out of 15)	**66.67%**

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Campus Sustainability

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

5.1. Does your institution have an Office of Sustainability?	
Yes, there is an Office of Sustainability with multiple full-time staff dedicated to campus sustainability. If the Office of Sustainability serves the entire campus, there is **at least one designated staff member** for sustainability at the hospital. (3 points)	
There is an Office of Sustainability with one or more full-time staff dedicated to campus sustainability, but **no specific staff member** in charge of hospital sustainability. (2 points)	
There are **no salaried sustainability staff,** but there is a sustainability task force or committee. (1 point)	
There are **no** staff members **or** task force responsible for overseeing campus sustainability. (0 points)	
Score Assigned:	2
Score explanation: Memorial University has a centralized Sustainability and Climate Action Office with multiple full-time staff responsible for sustainability initiatives across the university, including energy, waste, transportation, water, and climate action planning. However, there is no publicly identified staff member or sub-office dedicated specifically to sustainability within the Faculty of Medicine or affiliated teaching hospitals. Sustainability initiatives are implemented at the institutional level rather than through a medical school-specific structure. (LINK: Sustainability About Us)	

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

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Score explanation: Memorial University has publicly acknowledged the climate crisis through institutional commitments such as the Climate Crisis Pledge, Water Pledge, and the Sustainability Declaration. The university has initiated infrastructure projects (e.g., electrification of steam generation) and supports research and innovation relevant to emissions reduction. For example, Memorial received provincial and industry funding to expand carbon capture and storage research capacity, including enhancing laboratory facilities and training personnel in emerging carbon sequestration technologies. Additionally, the Memorial University Faculty Association has formally supported a climate action petition aligned with a United Nations Global Climate Letter, calling on the university president to commit to carbon neutrality by either 2030 or 2050 at the latest. The petition specifically references targets consistent with IPCC pathways, including a 45% reduction in net carbon emissions from 2010 levels by 2030 and achieving net-zero emissions by 2050. This demonstrates organized internal advocacy for the university to implement a plan. However, no publicly available, approved, time-bound institutional climate action plan aligned with specific emissions targets has been identified. (LINK: Carbon Storage Climate Crisis Pledge Water Pledge))

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:	1

Score explanation: Memorial University's St. John's campus derives power from NL Power grid and from three oil-fired boilers. Energy drawn from the NL Power grid is more than 90% renewable. As of 2025, the source of heating for the Faculty of Medicine and for the rest of the campus is from a combination of non-renewable source (oil fired boilers) and the power derived from NL Power grid (>90% renewable). In total 50% of energy use comes from non-renewable sources. Two out of the three boilers used for heating are getting converted to electric boilers. The project is expected to get commissioned around the end of the Winter 2026 semester. By the end of 2026, more than 80% of energy sources for the Faculty of Medicine and for the rest of the campus are planned to be based on renewable sources. It should be noted that this information was provided by Scott Hill, manager, Energy Systems and Controls, Facilities Management and there is not publicly available data quantifying the proportion of campus or medical-school teaching buildings powered by renewable energy.

5.4. Are sustainable building practices utilised for new and old buildings on the institution's campus, with design and construction of new buildings and remodelling of old buildings

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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: The following buildings are LEED silver buildings according to the CAGBC Database: Faculty of Medicine Expansion, Grenfell Residence, Macpherson Residence, Art & Science Extension Grenfell Campus. Memorial University incorporates sustainability principles into building infrastructure through energy-efficiency upgrades and retrofits of existing campus buildings, which help reduce greenhouse gas emissions and energy consumption. For example, Memorial undertook upgrades to lighting systems across campus buildings to improve energy efficiency and reduce power demand. Upgrades to thermostats, building management systems, and mechanical systems have also been implemented to optimize energy use. Additionally, the university has pursued emissions-reduction initiatives such as retrofitting older buildings for better energy performance and investing in systems that both lower costs and reduce environmental impact. There is no publicly accessible policy mandating comprehensive retrofitting of all older buildings. (LINK: Saving Energy & Costs Emissions Reduction Lighting the Way)	

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
Score explanation: Memorial University promotes environmentally friendly transportation options, including public transit use ($275 per semester), cycling infrastructure, bike locker rentals ($25 per semester with six additional lockers were installed in December 2025), electric vehicle charging stations (located at the Faculty of Medicine & Marine Institute), and carpooling information. It should be noted that public transit passes have been the subject of advocacy by Memorial University, including multiple attempts to implement a Universal Transit Pass (U-Pass) program	

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and campus-wide votes on the initiative, reflecting the University's ongoing interest in making transit more affordable and accessible for students. Therefore, while these options demonstrate institutional support for alternative transportation, they are not fully subsidized, and students must still bear some associated costs. Additionally, winter conditions in St. John's limits the feasibility of cycling year-round. (LINK: Transportation Cycling to Campus Return of the U-Pass)

5.6. Does your institution have an organics recycling program (compost) and a conventional recycling program (aluminium/paper/plastic/glass)?	
Yes, the institution has **both** compost **and** recycling programs accessible to students and faculty. (2 points)	
The institution has **either** recycling **or** compost programs accessible to students and faculty, but not both. (1 point)	
There is **no** compost or recycling program at the institution. (0 points)	
Score Assigned:	2
Score explanation: Memorial University provides both conventional recycling and organics recycling (composting) programs accessible to students and faculty across campus. Recycling streams include paper, containers, metals, hazardous waste, and specialty items (ex. batteries & electronic waste), and composting programs are implemented in food service. For example, food waste collected in the main dining hall is composted at the Memorial University Botanical Garden. Garden waste from the community garden is composted on-site and in a nearby drum-style composter. Additionally, during renovations, some furniture is provided to other units for re-use. The Furniture Finder program, which redistributed used furniture and was discontinued during COVID, is currently being re-designed. However, while programs such as battery recycling, furniture reuse, and specialty waste diversion appear to exist operationally, detailed information regarding the number of locations, accessibility, program scope, and current status is not consistently or centrally documented on publicly accessible university webpages. (LINK: Waste Management Burton's Pond Recycling Composting Program)	

5.7. Does the institution apply sustainability criteria when making decisions about the campus food and beverage selections (e.g. local sourcing, reduced meat, decreased plastic packaging)?
Yes, the institution has a**dequate s**ustainability requirements for food and beverages, including meat-free days or no red-meat, and **is engaged** in efforts to increase food and beverage sustainability. (3 points)
There are sustainability guidelines for food and beverages, but they are **insufficient or optional**. The institution **is engaged** in efforts to increase food and beverage sustainability. (2 points)
There are sustainability guidelines for food and beverages, but they are **insufficient or optional.** The institution is **not** engaged in efforts to increase food and beverage sustainability. (1 point)
There are **no** sustainability guidelines for food and beverages. (0 points)

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Score Assigned:	2
Score explanation: Memorial University has demonstrated engagement in sustainable food initiatives, including designation as a Fair Trade Campus since 2016, a large community garden for students, faculty, and staff, and reduction of bottled water through its Water Pledge (vending machines do not carry water bottles, but plastic water bottles are still often used during campus events). Vegetarian and plant-based options are available across campus food services. Additionally, campus food services are operated under Aramark's Sustainable Sourcing Framework, which guides consideration of environmental and social impacts across the supply chain. Memorial's campuses incorporate additional practices, such as prioritizing locally sourced seafood and eliminating styrofoam serviceware in dining operations. However, formal, mandatory sustainability requirements for food procurement (e.g., meat-free days, quantified plant-based targets, or binding sourcing standards) were not identified. (LINK: Fair Trade Campus Campus Dish Being Green Food Systems)	

5.8. Does the institution apply sustainability criteria when making decisions about supply procurement?	
Yes, the institution has **adequate** sustainability requirements for supply procurement **and** is **engaged** in efforts to increase sustainability of procurement. (3 points)	
There are sustainability guidelines for supply procurement, but they are **insufficient or optional.** The institution is **engaged** in efforts to increase sustainability of procurement. (2 points)	
There are sustainability guidelines for supply procurement, but they are **insufficient or optional.** The institution is **not engaged** in efforts to increase sustainability of procurement. (1 point)	
There are **no** sustainability guidelines for supply procurement. (0 points)	
Score Assigned:	1
Score explanation: Memorial University's Purchasing Policy explicitly acknowledges environmental responsibility as a consideration in procurement decisions. The policy states that purchasing should take into account principles such as reducing, reusing, and recycling materials; conserving natural resources; reducing carbon emissions; reducing energy and water use; and considering total life-cycle cost when evaluating products. However, these sustainability principles function as guiding considerations rather than mandatory requirements. No publicly available evidence was identified outlining enforceable sustainability standards, minimum environmental performance thresholds, or required supplier sustainability criteria (e.g., emissions reporting, certifications, or sustainable sourcing benchmarks). *(LINK: Purchasing Policy)*	

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)

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There are **no** sustainability guidelines for institution events. (0 points)	
Score Assigned:	0
Score explanation: Review of Memorial University's "Planning an Event" guidance indicates that no explicit sustainability criteria are required or outlined for institutional events. The event planning materials focus primarily on risk management, safety, insurance, and logistics, and do not reference environmental sustainability measures such as waste reduction, sustainable food choices, or low-carbon event practices. While Memorial has institution-wide initiatives that may influence events indirectly, such as the Water Pledge, these measures are recommended rather than enforced, and there is no centralized policy or requirement mandating sustainable practices for all events. (LINK: Planning an Event Water Sustainability)	

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:	1
Score explanation: No centralized program, certification, or institution-wide initiative specifically targeting sustainable laboratory operations was identified. However, Memorial University demonstrates some sustainability engagement within laboratory spaces, including domain-specific commitments to green and sustainable science. In February 2025, departments in the Faculty of Science signed a Sustainable Science Commitment, a student-led initiative that pledges to integrate sustainability and green chemistry principles into scientific teaching, research, and lab practices. The commitment is based on established sustainability frameworks (e.g., principles of Beyond Benign) and includes provisions to monitor and report on progress, indicating a structured approach to embedding environmental sustainability in laboratory science disciplines. In addition, basic hazardous waste disposal procedures are maintained through university compliance systems to ensure proper management of chemical and biological wastes. (LINK: Beyond Benign)	

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)

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The institution has **not divested** from fossil-fuel companies, but faculty and/or students are **conducting organised advocacy** for divestment. (1 point)	
Yes, the institution has investments with fossil-fuel companies and there have been **no efforts** to change that. (0 points)	
Score Assigned:	0
Score explanation: Memorial University publicly discloses its pension plan, endowed, and non-endowed investment holdings through its Accountability and Transparency portal. Review of the most recent disclosed holdings (as of June 30, 2025) demonstrates that Memorial University continues to hold direct and indirect investments in fossil fuel related companies, including firms involved in oil and gas production, transportation, and energy infrastructure. These include, but are not limited to, companies such as Suncor Energy, Imperial Oil, TC Energy (TransCanada), Enbridge, Canadian Natural Resources, Tourmaline Oil, ARC Resources, MEG Energy, and Altagas. While Memorial's disclosure practices demonstrate transparency, no public commitment to fossil fuel divestment or partial divestment was identified, nor evidence of a formal timeline to reduce or eliminate fossil fuel investments. Additionally, no publicly documented, organized faculty or student-led divestment campaign was identified. (LINK: Investment Disclosure)	

Section Total (12 out of 32)	**37.5%**

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Grading

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

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

**Within each grade bracket, a score in the top 5% (_5 to_9%), receives a "+", and a score in the bottom 5% (_0-_4%) receives a "--". For example, a percentage score of 78% would be a B+.*

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Planetary Health Grades for Memorial University's Faculty of Medicine.
The following table presents the individual section grades and overall institutional grade for Memorial University's Faculty of Medicine on this Planetary Health Report Card.

Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	(44/75) x 100 = 58.67%	C+
Interdisciplinary Research (17.5%)	(7/17) x 100 = 41.18%	C-
Community Outreach and Advocacy (17.5%)	(7/14) x 100 = 50.00%	C
Support for Student-led Planetary Health Initiatives (17.5%)	(10/15) x 100= 66.67%	B
Campus Sustainability (17.5%)	(12/32) x 100 = 37.50%	D+
Institutional Grade	**(Ax0.3 + Bx0.175 + Cx0.175 + Dx0.175 + Ex0.175) = 51.79%**	**C**

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