



Planetary Health Report Card (Nursing):

Trinity Western University



**TRINITY WESTERN
UNIVERSITY**

2022-2023 Contributing Team:

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Summary of Findings

Overall	B
<u>Curriculum</u>	A
<ul style="list-style-type: none"> Trinity Western University School of Nursing thoroughly integrates planetary health education within its undergraduate curriculum. The curriculum does not fully address the impacts of extreme weather events on the healthcare system, effects of environmental toxins on reproductive health, tools for conversing with patients about planetary health, or waste generated by healthcare provision. Recommendations: To enhance longitudinal and comprehensive integration, we recommend including the missing metrics within NURS 127, NURS, 227, and NURS 317 in the 2023-24. 	
<u>Interdisciplinary Research</u>	B
<ul style="list-style-type: none"> The faculty at TWU SON are extensively involved in planetary health research, including knowledge translation and dissemination. Recommendations: We recommend that the SON become a member of at least one key planetary health association and aim to host one interprofessional education seminar regarding the risks of climate change by December 2023. 	
<u>Community Outreach and Advocacy</u>	C+
<ul style="list-style-type: none"> Current community outreach and advocacy with regard to planetary health and sustainability initiatives is currently lacking within the SON. Community-based initiatives are plentiful within other institutional departments but are not yet accessed by the undergraduate students in the SON. Recommendations: Through the creation of the “Planetary Health Club”, we recommend that a minimum of two events targeted at environmental justice are initiated by December 2023. 	
<u>Support for Student-Led Initiatives</u>	B+
<ul style="list-style-type: none"> There is sufficient support within the SON for student-led initiatives but still lack practical opportunities for undergraduate, student-led planetary health research. Nonetheless, the SON has initiated the inauguration of the “Planetary Health Club” to enhance planetary health initiatives. Recommendations: We recommend that opportunities for planetary health research and knowledge dissemination be created and advertised for undergraduate nursing students. The outworking of this can be achieved through initiating 1 new undergraduate student-led research project within the newly formed “Planetary Health Club” by December 2023. 	
<u>Campus Sustainability</u>	C-
<ul style="list-style-type: none"> Institution-wide initiatives for sustainability are currently lacking at TWU and have room for improvement. While efforts are made within the SON to pursue sustainability, few initiatives exist to aid in institutional sustainability reform. Recommendations: We recommend that the findings within this report card be presented at an faculty and/or executive level to address opportunities for growth in sustainability at TWU. 	

Statement of Purpose

Planetary health is human health.

As they prepare to enter the largest workforce in healthcare, nursing students are uniquely positioned to confront the challenges of climate change in the arena of human health. While the format and curriculum in nursing may vary between programs, degrees, and nationalities, the core tenets of planetary health can and must be integrated throughout the nursing education. The role of the nurse is one of the most unique and multi-faceted; from the bedside to research, nurses have the ability to enact real change at many levels. With these potential impacts in mind, the ramifications of pollution, extreme weather, vector-borne diseases, unsustainable agriculture, and rising sea levels must be addressed in the nursing curriculum. Equally important, the socioeconomic and disproportionately affected communities of these manifestations must also be included in nursing education.

Goals:

- Operate as a gap analysis for nursing programs to identify planetary health strengths and opportunities for growth.
- Assemble synthesized, program-specific information on planetary health resources useful for faculty, staff, and students.
- Facilitate sharing of planetary health resources across programs.
- Track progress in implementing and optimizing planetary health curriculum and resources.
- Advance the global planetary health movement in pursuit of a healthier and more equitable world.
- Utilize as a long-term metric that accounts for improvements and opportunities for growth continuously each year.
- Highlight successes and collaborations regarding planetary health in institutions through thorough evaluation of metrics.

Definitions & Other Considerations

Definitions:

- **Planetary Health:** is described by the Planetary Health Alliance as “the health of human civilisation and the state of the natural systems on which it depends.” For example, topics such as climate change, declining biodiversity, shortages of arable land and freshwater, and pollution would all fall under the realm of planetary health. Both planetary health and traditional ‘environmental health’ examine the relationship between human health and the external environment, including extreme temperatures, chemicals, vector-borne diseases, etc. Planetary health explicitly concerns itself with the potential health harms associated with human-caused perturbations of natural systems. Therefore, the human health focus of planetary health makes the field well-adapted for the context of medical school education. Throughout this report card, we use the term planetary health to refer to this broad swath of topics, but resources do not need to explicitly include the term “planetary health” to satisfy the metric.
- **Sustainability:** the principle of creating and maintaining conditions under which humans and nature can exist in productive harmony to support present and future generations (Environmental Protection Agency, 2021).
- **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.
- **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).
- **Nursing program:** any pre-licensure program responsible for the training of professional nurses

Planetary Health Curriculum

Section Overview: *This section evaluates the integration of relevant planetary health topics into the nursing school curriculum. The curriculum for nursing programs around the world share many core topics regarding health and the medical system. In order to create a truly holistic education that includes the implications of our changing climate, the subject must be integrated into the nursing curriculum. As future frontline workers, nurses will experience the dire consequences of climate change first hand, and must be equipped to not only care for afflicted patients, but to encourage preventative change. We are already seeing the impacts on human health that climate change can bring, and the nursing curriculum must reflect these realities.*

Curriculum: General

1. Does your nursing school offer courses/extracurricular activities regarding the relationships between extreme weather events and climate change?	
2	This topic was explored in depth by the core curriculum.
1	This topic was briefly covered in the core curriculum.
0	This topic was not covered.
N/A	Not applicable to this program.
<p><i>Score explanation:</i> The course NURS 227- Global Health, Humanitarianism and Global Missions- is integrated into the core curriculum for the undergraduate SON and is mandatory for all students to take in their second year. The course explores, in particular, “past and current global health topics such as global burden of disease, health systems strengthening, public and health policy, human rights, Indigenous health, infectious diseases and global disasters” (Astle and Brandsma, 2022, p.1). Note: Application is submitted to change course name to “Planetary and Global Health” for the 2023-24 academic year.</p> <p>NURS 227: Global Health, Humanitarianism and Global Missions- Week 8- The relationships between climate change and extreme weather events (Extreme heat, forest fires, and floods in particular) are thoroughly and explicitly addressed throughout the entirety of the lecture.</p>	

2. Does your program provide education regarding the impacts of extreme weather events, e.g. storm, flooding, heat, drought, air pollution, on individual health?	
2	This topic was explored in depth by the core curriculum.
1	This topic was briefly covered in the core curriculum.

0	This topic was not covered.
N/A	Not applicable to this program.
<p><i>Score explanation:</i> NURS 127: Health Promotion and Primary Care- Seminar 4 - Slide 5 & 12: The lecture highlights that pollution and poor air quality contribute negatively to an individual's overall health. NURS 127: Health Promotion and Primary Care- Seminar 6 - Slide 20: It is noted that air quality and climate should be taken into account when doing a health assessment of a community. NURS 227: Global Health, Humanitarianism and Global Missions- Week 8- The lecture reveals the physiological impacts of extreme weather events; addressing heat stress secondary to heat waves (slide 27) and respiratory illnesses secondary to air pollution (slide 37). NURS 317: Community Health- Seminar 6 - Slide 10, 11, & 13: The slides discuss impacts of environmental health and environmental disasters including weather conditions specifically related to the health of vulnerable populations.</p>	

3. Does your program include education regarding mental health issues and well-being effects resulting from environmental degradation due to extreme weather events in education material?	
2	This topic was explored in depth by the core curriculum.
1	This topic was briefly covered in the core curriculum.
0	This topic was not covered.
N/A	Not applicable to this program.
<p><i>Score explanation:</i> NURS 227: Global Health, Humanitarianism and Global Missions- Week 9- Lecture briefly addresses the relation of global health on mental health. NURS 227: Global Health, Humanitarianism and Global Missions - Course provides students with a toolkit developed by UBC School of Nursing to address and navigate eco-anxiety.</p>	

4. Does your nursing curriculum address impacts of climate change on the changing patterns of infectious diseases?	
2	This topic was explored in depth by the core curriculum.
1	This topic was briefly covered in the core curriculum.
0	This topic was not covered.
N/A	Not applicable to this program.
<p><i>Score explanation:</i></p>	

NURS 227: Global Health, Humanitarianism and Global Missions- Week 10- Lecture focuses on key challenges that affect patterns of infectious diseases and future prevention methods. Also notes demographic trends making infectious disease more challenging to manage.

NURS 227: Global Health, Humanitarianism and Global Missions- Week 1- Lecture addresses ecological drivers (i.e., climate change) that result in various health effects including infectious disease.

NURS 317: Community Health- Seminar 6 - Slide 16: Lecture highlights environmental health inequities that certain populations face due to geographic and geopolitical location that heavily experience the impacts of climate change.

5. Does your nursing curriculum address pathophysiological health effects resulting from climate change, including effects such as air, soil and water pollution?

2	This topic was explored in depth by the core curriculum.
1	This topic was briefly covered in the core curriculum.
0	This topic was not covered.
N/A	Not applicable to this program.

Score explanation: See evidence for metric 1.2

6. Does your nursing curriculum address mental health issues and well-being effects resulting from environmental degradation due to climate change?

2	This topic was explored in depth by the core curriculum.
1	This topic was briefly covered in the core curriculum.
0	This topic was not covered.
N/A	Not applicable to this program.

Score explanation: See evidence for metric 1.3

7. Does your nursing curriculum address relationships between climate change, food and water security and the impact on health?

2	This topic was explored in depth by the core curriculum.
1	This topic was briefly covered in the core curriculum.

0	This topic was not covered.
N/A	Not applicable to this program.

Score explanation:

NURS 127: Health Promotion and Primary Care- The course highlights the relationships between food and water security and its impacts on health.

NURS 227: Global Health, Humanitarianism and Global Missions- Week 8- Slide 17 clearly highlights the impact of climate change on food and water security.

NURS 317: Community Health- Seminar 6 - Slide 15 briefly addresses the relationship between climate change and food and water security. The corresponding health impacts of this relationship was also addressed.

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

2	This topic was explored in depth by the core curriculum.
1	This topic was briefly covered in the core curriculum.
0	This topic was not covered.
N/A	Not applicable to this program.

Score explanation:

NURS 322: Care of the Childbearing Family- Seminar 6- Lecture notes that exposure to toxins in the environment during the prenatal period can have teratogenic effects on the fetus alongside individual adverse effects for the mother.

9. Does your nursing curriculum address important human-caused environmental threats that are relevant to the university or program's surrounding community?

2	This topic was explored in depth by the core curriculum.
1	This topic was briefly covered in the core curriculum.
0	This topic was not covered.
N/A	Not applicable to this program.

Score explanation:

NURS 227: Global Health, Humanitarianism and Global Missions- Week 8- Lecture addressed local floods and fires tied to human caused environmental threats (i.e. floods of 2021 in the Fraser Valley, British Columbia, and forest fires across the region).

NURS 317: Community Health - Seminar 6 - Slide 9 & 10: Discusses one cause of disasters or environmental threats is man-made. Provides examples such as mass injuries and death. Discusses how

urbanization and overcrowding, relevant to the university's surrounding community, increases the destructive power of human-made disasters.

10. Does your nursing school curriculum address relationships between ecosystem health and climate change?

2	This topic was explored in depth by the core curriculum.
1	This topic was briefly covered in the core curriculum.
0	This topic was not covered.
N/A	Not applicable to this program.

Score explanation:

NURS 227: Global Health, Humanitarianism and Global Missions- Week 8- Slide 12 explores how climate change impacts the health of the ecosystem, noting specifically the corresponding outcomes of these impacts.

NURS 227: Global Health, Humanitarianism and Global Missions- Week 3- Guest lecturer from biology department explicitly addressed the relationships between ecosystem health and climate change.

11. Does your nursing curriculum address impacts of extreme weather events on healthcare systems?

2	This topic was explored in depth by the core curriculum.
1	This topic was briefly covered in the core curriculum.
0	This topic was not covered.
N/A	Not applicable to this program.

Score explanation:

NURS 227: Global Health, Humanitarianism and Global Missions- Week 8- Slide 13 of this lecture highlights the various disruptions caused to the Canadian health care system due to extreme weather events.

12. Does your nursing curriculum address socioeconomic/racial disparities in extreme weather exposure?

2	This topic was explored in depth by the core curriculum.
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1	This topic was briefly covered in the core curriculum.
0	This topic was not covered.
N/A	Not applicable to this program.

Score explanation:

NURS 227: Global Health, Humanitarianism and Global Missions- Week 8- The lecture reveals how climate change intersects with various social determinants of health and structural systems to exacerbate inequalities faced by marginalized populations.

NURS 317: Community Health- Seminar 6

Slide 10: Developing countries experience a disproportionate burden due to limited resources, higher death rates, and less social support.

Slide 13: Vulnerable & disparate groups, Indigenous communities, & children (immigrants, poverty, migrant workers, visible minority, homeless, single moms) experience worse health outcomes due intersecting determinants of health..

Slide 17: Socioeconomic status which is tied to physical context impacts access to a clean environment.

13. Does your nursing curriculum address inequitable health impacts of climate change globally?

2	This topic was explored in depth by the core curriculum.
1	This topic was briefly covered in the core curriculum.
0	This topic was not covered.
N/A	Not applicable to this program.

Score explanation: See metric 1.12

NURS 127: Health Promotion and Primary Care - Seminar 4 - The lecture addresses the CNA position statement on global health and equity, acknowledging the disparities that exist throughout the world

NURS 227: Global Health, Humanitarianism and Global Missions- Week 8- This core lecture covers this topic in depth.

14. Does your nursing curriculum address climate and environmental health challenges that impact marginalized populations and communities?

2	This topic was explored in depth by the core curriculum.
1	This topic was briefly covered in the core curriculum.
0	This topic was not covered.
N/A	Not applicable to this program.

Score explanation:

See evidence for 1.12

NURS 227: Global Health, Humanitarianism and Global Missions- Week 8- The lecture covers this topic in depth.

NURS 317: Community Health- Seminar 6 - Slide 13: Impact of environmental health on vulnerable & disparate groups, First Nations communities, & children; impact of environmental hazards heaviest amongst poor & vulnerable populations.

15. Does your nursing curriculum address the impact of environmental degradation due to climate change on marginalized populations and communities?

2	This topic was explored in depth by the core curriculum.
1	This topic was briefly covered in the core curriculum.
0	This topic was not covered.
N/A	Not applicable to this program.

Score explanation:

See evidence for 1.12

NURS 317: Community Health- Seminar 6- Slide 10: Developing countries experience a disproportionate burden due to limited resources, higher death rates, and less social support.

Slide 13: Vulnerable & disparate groups, First Nations communities, & children (immigrants, poverty, migrant workers, visible minority, homeless, single mothers, etc.) differ from national average.

16. Does your nursing curriculum address outsized impacts of anthropogenic environmental toxins on marginalized populations and communities?

2	This topic was explored in depth by the core curriculum.
1	This topic was briefly covered in the core curriculum.
0	This topic was not covered.
N/A	Not applicable to this program.

Score explanation:

See evidence for 1.12

NURS 227: Global Health, Humanitarianism and Global Missions- Week 8- Slide 20 explores 'environmental racism', commenting on the disproportionate exposure to anthropogenic toxins faced by communities of color.

NURS 317: Community Health- Seminar 6 - Explains how social and geopolitical locations can contribute to environmental health inequities:

Slide 5: Ecological determinants of health and environmental health inequities

Slide 11: Environmental health factors

Slide 13: Impact of environmental health on vulnerable & disparate groups, First Nations communities,

& children; impact of environmental hazards heaviest amongst poor & vulnerable populations

17. Does your nursing program specifically have planetary health as part of its mission and/or values?

2 This topic was explored in depth by the core curriculum.

1 This topic was briefly covered in the core curriculum.

0 This topic was not covered.

N/A Not applicable to this program.

Score explanation:

[SON Mission, Values, and Philosophy](#) contains a specific section on “The Nature of Environment”, noting the role of nurses as environmental advocates. This guiding document has had practical outworkings through the integration of the course NURS 227: Global Health, Humanitarianism and Global Missions, into the core curriculum.

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

2 This topic was explored in depth by the core curriculum.

1 This topic was briefly covered in the core curriculum.

0 This topic was not covered.

N/A Not applicable to this program.

Score explanation:

[Dr. Barbara Astle](#), Professor and Director of the MSN program at the SON, is responsible for planetary health research and education in the SON.

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

2 This topic was explored in depth by the core curriculum.

1 This topic was briefly covered in the core curriculum.

0 This topic was not covered.

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

N/A	Not applicable to this program.
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Score explanation:
We were unable to find evidence of this in the curriculum at this time.

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

2	This topic was explored in depth by the core curriculum.
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1	This topic was briefly covered in the core curriculum.
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0	This topic was not covered.
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N/A	Not applicable to this program.
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Score explanation: We were unable to find evidence of this in the curriculum at this time.

Section Total (34 out of 40)

(85%) A

Interdisciplinary Research

Section Overview: *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 medical field. As institutions tasked with creating the next generations of nurses and advanced practitioners, nursing schools should fund and support research studying the health effects of climate change. Furthermore, it is imperative for the health systems in which the nursing schools exist to encourage interdisciplinary cowork between the nursing, medical, pharmacy, and allied health schools to further the efficacy of research and education.*

1. Are there researchers or faculty engaged in planetary health research and/or healthcare sustainability research or scholarship at your nursing program’s institution?

2	Yes, there are faculty members at the school of nursing who are conducting research related to planetary health and/or healthcare sustainability research or scholarship.
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1	There are planetary health and/or healthcare sustainability researchers at the institution, but none are associated with the school of nursing.
0	There are no planetary health and/or healthcare sustainability researchers at the institution at this time.
N/A	Not applicable to this program.

Score explanation:

[Dr. Barbara Astle](#), Professor and Director of the MSN program at the SON, is extensively engaged in planetary health research at national and international levels. In particular, her work has helped pioneer planetary health educational frameworks that have been implemented within the SON.

2. Does your nursing program support scholarly dissemination on topics of planetary health (e.g., peer-reviewed publications, conference presentations, abstracts, etc.)?

2	Yes, faculty members and/or students at the school of nursing have been involved with scholarly dissemination on topics of planetary health.
1	Faculty members and/or students have been involved with scholarly dissemination on topics of planetary health, but none are associated with the school of nursing.
0	No, faculty members and/or students have not been involved with scholarly dissemination on topics of planetary health.
N/A	Not applicable to this program.

Score explanation:

There is extensive scholarly dissemination on topics regarding planetary health by SON faculty. Faculty from the SON have written planetary health chapters within textbooks that are used nationally and internationally for undergraduate nursing curriculum. Key work by faculty within the SON has contributed to the inclusion of planetary health in the [National Nursing Education Framework](#) in Canada. Multiple peer-reviewed publications, conference presentations, and abstracts have been authored by teaching faculty at the SON.

3. Is there a process by which communities or patients disproportionately impacted by climate change and environmental injustice can give input or make decisions about the research agenda at your nursing program's institution?

2	Yes, there is a process in which community members impacted by climate and environmental injustice can advise or make decisions about the research agenda.
1	No, but there are current efforts to establish a process for community members to advise or make decisions on the research agenda.

0	There is no process, and no efforts to create such a process.
N/A	Not applicable to this program.
<p><i>Score explanation:</i> The TWU environmental club initiated an “Mayoral All Candidates Meeting” on campus to have mayoral candidates of Langley discuss climate change with voters. This allowed community members disproportionately affected by climate change to voice their concerns and propose solutions. Although this does not directly inform the research agenda, this recurring initiative provides voice to community members.</p> <p>A recent publication was informed by persons with albinism who are disproportionately affected by climate change due to the lack of melanin in their skin. The paper explored the impacts this population faces due to climate change.</p>	

4. Does your nursing program’s institution have a planetary health website, or a website centralizing various program resources related to health and the environment?	
2	There is an easy-to-use, adequately comprehensive website that centralizes various campus resources related to health and the environment.
1	The institution has an Office of Sustainability website that includes some resources related to health and the environment, but it is not updated or is not adequately comprehensive.
0	There is no website.
N/A	Not applicable to this program.
<p><i>Score explanation:</i> The institution does not have a planetary health website at this time.</p>	

5. Has your nursing program’s institution recently hosted a conference or symposium on topics related to planetary health?	
2	Yes, the school of nursing or institution has hosted at least one conference or symposium on topics related to planetary health in the past year.
1	Yes, the school of nursing or institution has hosted at least one conference or symposium on topics related to planetary health in the past three years.
0	No, the school of nursing or institution has not hosted a conference on topics related to planetary health in the past three years.
N/A	Not applicable to this program.
<p><i>Score explanation:</i></p>	

A “Nursing Network Café” was hosted on the topic of planetary health in October of 2019. Nursing scholars gathered to listen and discuss the topic of planetary health, focusing on the role of nursing in addressing this issue.

Trinity Western University has hosted a set of seminars called the “TWU Sustainability Series”. Seminar titles include “[Climate Justice and Policy](#)” and “[Plastic Particles of Hope](#)” in the last year. The series concluded by engaging in a community garbage clean-up led by TWU faculty and students.

6. Has your nursing program joined the Alliance for Nurses for Healthy Environments, the Planetary Health Alliance, the Global Consortium on Climate and Health Education, or the Nursing Climate Challenge?

2	Yes, the school of nursing has joined more than one of these groups.
1	Yes, the school of nursing has joined one of these groups.
0	No, the school of nursing has not joined any of these groups.
N/A	Not applicable to this program.

Score explanation:

Dr. Barbara Astle and other faculty members are individual members of Alliance for Healthy Environments, Planetary Health Alliance, Global Consortium on Climate and Health Education, Canadian Association of Nurses for the Environment, and Nursing Climate Change. TWU is an institutional member of the [Canadian Association for Global Health](#).

TWU is a member of the Nursing Climate Challenge.

Due to the small size of TWU’s program, membership costs to listed groups creates a large barrier for the SON to join.

Students and faculty took the [planetary health pledge](#) on World Health Day (April 7, 2022) as a profession-wide commitment to work for the improvement of the planet’s health.

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

2	Yes, the school of nursing has been involved with IPE simulations or experiences in the past year.
1	Yes, the school of nursing has been involved with IPE simulations or experiences in the past three years.
0	No, the school of nursing has not been involved with IPE simulations in the past three years.

N/A	Not applicable to this program.
<p><i>Score explanation:</i> The Biology department collaborated with the Nursing department on January 25th to work through case-studies and real-world examples of the impacts of climate change on native and invasive species.</p> <p>See metric 4.3 for the new “Planetary Health Club” that focuses on interdisciplinary collaboration.</p>	

Section Total (10 out of 14)	(71.4%) B
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Community Outreach and Advocacy

Section Overview: *Researching and teaching planetary health is necessary but not sufficient. It is critical that institutions also directly engage with communities impacted by disruptions of the environment and Earth’s natural systems. For example, even though climate change is a problem largely created by those with power and resources, its impacts fall disproportionately on BIPOC populations and low resourced communities. Institutions should partner with local communities affected by environmental degradation to share information about environmental health threats, advocate together for change, and provide students with opportunities to connect with the communities they serve.*

1. Does your nursing program partner with community organizations to promote planetary and environmental health?	
2	Yes, the school of nursing meaningfully partners with one or more community organizations to promote planetary and environmental health.
1	The institution partners with community organizations, but the school of nursing is not part of that partnership.
0	No, there is no such meaningful community partnership.
N/A	Not applicable to this program.
<p><i>Score explanation:</i> The TWU environmental club (TWEC) has established multiple partnerships with organizations to promote planetary and environmental health:</p> <p>Salmon River Enhancement Society- TWU partners with this organization to offer the Salmon in the Valley School Program; a day-camp educating local children on conservation.</p> <p>Langley Environmental Partners Society- TWU partners directly with this non-governmental organization to initiate and carry out different environmental health initiatives in the community.</p>	

Climate Crisis Langley Action Partners (CCLAP)- Assisted TWEC with “Mayoral All Candidates Meeting” (see metric 2.3). CLAPP hosts monthly meetings addressing impacts faced by the community as a result of climate change. TWU students take part in these meetings and help with events.

[A Rocha Canada](#)- This environmental conservation organization partners with TWU, providing volunteer opportunities and internships to students interested in conservation.

The SON will soon merge with TWEC to create the “Planetary Health Club” (see metric 4.3); a positive interdisciplinary initiative that will open these community partnerships to the SON.

The School of Nursing is an active member of the [British Columbia Coalition Institute \(BCCI\)](#); an organization that promotes planetary health research on a local and global scale. Through this partnership, a community of practice (CoP) has been formed to enhance planetary health research and knowledge translation.

2. Is your nursing program engaged in community facing courses or events regarding planetary health?

2	The school of nursing offers community-facing courses or events at least once every year.
1	The school of nursing offers courses or events open to the community, but they are not primarily created for a community audience.
0	No, the school of nursing has not offered such community-facing courses or events.
N/A	Not applicable to this program.

Score explanation:

See metric 2.5 for “Networking Cafe” that was open to community members.

3. Does your nursing program have regular coverage of issues related to planetary health and/or sustainable health care in program update communications?

2	Yes, students regularly receive communication updates dedicated to planetary health and/or sustainable healthcare.
1	Planetary health and/or sustainable healthcare topics are sometimes included in communication updates.
0	Students do not regularly receive communications about planetary health and/or sustainable healthcare.
N/A	Not applicable to this program.

Score explanation:

The [School of Nursing Instagram](#) sometimes contains communication regarding planetary health.

4. Does your nursing program offer continuing education courses or interprofessional experiences that address planetary health and/or sustainable health care?

2	Yes, the nursing program offers multiple in-person or online continuing education courses or interprofessional experiences relating to planetary health and/or sustainable healthcare for post-graduate providers, including at least one with a primary focus of planetary health.
1	Yes, the nursing program offers one continuing education course or interprofessional experience relating to planetary health and/or sustainable healthcare for post-graduate providers
0	There are no such accessible courses for post-graduate providers
N/A	Not applicable to this program.

Score explanation:

No evidence for this metric was found at this time.

5. Does your nursing program participate in or encourage advocating for policies addressing planetary health issues?

2	Yes, the school of nursing actively participates in promotion of policies addressing planetary health issues.
1	The institution participates in the promotion of policies addressing planetary health issues, but the school of nursing is not involved with this.
0	No, there is no participation in promotion of policies addressing planetary health issues.
N/A	Not applicable to this program.

Score explanation:

TWU faculty are working alongside the International Council of Nursing and other nursing scholars in the United States on a values and ethics document that will be presented in July 2023 at a policy café at the ICN Congress in Montreal, Canada.

6. Has your nursing program partnered with local, regional, or national health care institutions/organizations to promote planetary health related education for the public?

2	Yes, the school of nursing has partnered with healthcare organizations to promote planetary health related education for the public.
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1	Yes, the institution has partnered with healthcare organizations to promote planetary health related education for the public, but the school of nursing is not involved with this.
0	No, there is no partnership with healthcare organizations to promote planetary health related education for the public.
N/A	Not applicable to this program.
<p><i>Score explanation:</i> TWU faculty engaged with the professional nursing body (Nurses and Nurse Practitioners of British Columbia) to participate in a nurse-led policy table to share policy priorities. Faculty advocated for planetary health as one of the policy priorities for nursing.</p>	

Section Total (7 out of 12)	(58%) C+
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Support for Student-Led Planetary Health Initiatives

Section Overview: *The future of planetary health belongs to the next generation of healthcare workers, and students are often the first at an institution to address the crisis. Nursing programs should encourage student engagement in planetary health and/or sustainability initiatives by providing mentorship, facilitating opportunities for educational and immersion experiences, and securing funding for student-led research and quality improvement projects. These efforts not only encourage student activity, but at best can work in cohesion with community projects.*

1. Does your nursing program or educational institution have a student representative serving on a nursing programme or educational institution decision-making committee advocating for planetary health and/or sustainability best practice?	
2	Student representation is actively encouraged by the school of nursing or educational institution with time spent counting towards programme hours where applicable.
1	There is opportunity for student representation but this requires student initiative to seek out and carry out activities in their spare time.
0	There is no such opportunity for student involvement.
N/A	Not applicable to this program.
<p><i>Score explanation:</i> The “Eco Stewardship Committee” is made up of two students outside of the school of nursing that meet with institution faculty to discuss sustainability initiatives. No nursing students are on this committee at this time but can seek out these initiatives if they so desire.</p>	

2. Does your nursing program or educational institution provide opportunities for nursing students to conduct research related to planetary health and/or sustainability in healthcare?

2	There is a specific planetary health and/or sustainability in healthcare research program or module for students interested in conducting research on this topic.
1	There are opportunities for students to perform research but these require student initiative to select planetary health and/or sustainability in healthcare as a topic.
0	There is no such opportunity for students.
N/A	Not applicable to this program.

Score explanation:

Dr. Barbara Astle has hired an undergraduate research assistant to assist her in conducting planetary health research. While no explicit module or program exists for conducting planetary health research, opportunities do exist within the SON of nursing to conduct planetary health research.

3. Does your nursing program or educational institution support nursing students interested in enacting planetary health and/or sustainability initiatives or quality improvement projects?

2	Yes, students have been supported to enact planetary health and/or sustainability initiatives or quality improvement projects in the past year.
1	Yes, there is support for students however no initiatives have been enacted in the past year.
0	There is no such opportunity for students.
N/A	Not applicable to this program.

Score explanation:

As of January 11, the School of Nursing has collaborated with the TWU Environmental club to create the “TWU Planetary Health Club”; a club envisioned to be a center for student-led planetary health initiatives, research, and information dissemination. This club was championed by SON faculty and will receive ongoing faculty support as this club unfolds.

4. Does your nursing program or educational institution offer opportunities for nursing students to teach or present about planetary health and/or sustainability in a healthcare related topic?

2	Yes, students have been involved in teaching or delivered presentations about planetary health and/or sustainability in healthcare during the past year.
1	There are opportunities for students however no teaching or presentations have been delivered in the past year.
0	There is no such opportunity for students.

N/A	Not applicable to this program.
<p><i>Score explanation:</i> Within the N227: Global Health, Humanitarianism and Global Mission course, each student is required to create and deliver a presentation regarding a planetary health topic as part of the course's core requirements. With N227 being a course required by all undergraduate nursing students, each student will make at least one presentation related to planetary health during their undergraduate education.</p>	

5. Does your nursing programme or educational institution provide one or more annual co-curricular planetary health and/or sustainability program initiatives in the following categories? (1 point each)	
1	Projects where students can gain experience in organic agriculture and sustainable food systems. For example, gardens, farms, community supported agriculture, fishery programmes, or urban agriculture projects?
1	Events in which students learn directly from members of a local environmental justice community about the environmental challenges they face?
1	Local volunteer opportunities related to building community resilience to anthropogenic environmental impacts?
1	Wilderness or outdoor programmes that follow “leave no trace” principles. For example: hiking, kayaking or other outings for students.
N/A	Not applicable to this program.
<p><i>Score explanation:</i> TWU had a community garden in the past in which students gained experience with sustainable food systems. Unfortunately, these gardens were shut down by the township in recent years. Initiatives are currently underway to re-establish these gardens in the near future.</p> <p>See metric 2.3 for community “Mayoral All Candidates Meeting” in which stakeholders would voice their concerns regarding environmental challenges.</p> <p>See metric 3.1 for A Rocha Volunteer Opportunities in conservation Derby Reach Brae Island Parks Association provides volunteer opportunities for TWU students to get involved in environmental stewardship in the community The Northern Spotted Owl Breeding Program provides opportunities for TWU students to get involved in endangered species conservation</p> <p>TWU outdoor club operates by “leave no trace” principles in the various hiking, climbing, and kayaking trips they organize.</p> <p>HKIN 216 - Journey: A TWU Outdoor Experience- This course open to all students is an eight day canoe trip that teaches and practices “leave no trace” principles.</p>	

Section Total (9 out of 12)

(75%) B+

Campus Sustainability

Section Overview: Often the most visible and accessible of the planetary health efforts, sustainability can take on many forms. As future healthcare workers, it is important to identify and nurture both a culture of sustainability and actionable items to work towards within our systems. 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 endeavor, the healthcare sector is well poised to lead the world to a more sustainable future. Creating a more sustainable future of healthcare will require more intentional procurement, thorough recycling and waste management, and continuing education to foster a healthcare environment that works towards planetary health.

1. Does your nursing program or program's institution have designated staff responsible for sustainability?

2	Yes, there is an Office of Sustainability with salaried staff dedicated to campus sustainability.
1	There is a sustainability task force or committee, but no salaried sustainability staff.
0	There are no staff members or committee responsible for overseeing campus sustainability.
N/A	Not applicable to this program.

Score explanation:

TWU hires a 'land manager' who monitors ecological and pollution indicators throughout the institution's property. There is no sustainability office nor salaried staff with the explicit role of sustainability on campus.

2. How ambitious is your institution/nursing school's plan to reduce its own carbon footprint?

5	The institution/nursing school has a written and approved plan to achieve carbon neutrality by 2030
3	The institution/nursing school has a written and approved plan to achieve carbon neutrality by 2040
1	The institution/nursing school has a stated goal of carbon neutrality by 2040 but has not created a plan to reach that goal or the plan is inadequate
0	The institution/nursing school does not meet any of the requirements listed above

Score explanation: No evidence could be found of the institution's plans to reduce its carbon footprint.

3. Do buildings or other infrastructure used by the nursing programs for teaching (not including hospitals) utilize renewable energy?

2	Nursing school buildings are powered by 100% renewable energy.
1	Nursing school buildings are powered by a combination of renewable and non-renewable energy sources.
0	Nursing school buildings are not powered by renewable energy.
N/A	Not applicable to this program.

Score explanation:

The new Robert G. Kuhn Building architectural design uses daylighting to create a thermal chimney to reduce energy usage. Nonetheless, this building is not powered by renewable energy.

4. Has the nursing program implemented strategies to encourage and provide environmentally friendly transportation options for students?

2	Yes, strategies to encourage and provide environmentally friendly transportation options have been implemented and are well publicized to students.
1	There are strategies to encourage and provide environmentally friendly transportation options but these are unsatisfactory or poorly publicized to students.
0	No strategies have been implemented to encourage and provide environmentally friendly transportation options.
N/A	Not applicable to this program.

Score explanation:

The nursing program encourages students to carpool for clinical placements and attempts to group students who live in close proximity to each other to common clinical placements that are within reasonable distance of their residences. There are various statements in syllabi and in orientations for students to carpool to clinical placements.

TWU recently installed a bus stop on campus to make environmentally friendly transportation more accessible to students.

5. Does your nursing program have a recycling program?	
2	There are recycling programs which are easily accessible to students and faculty.
1	There are recycling programs but they are poorly implemented or not easily accessible to students and faculty.
0	There is no recycling program.
N/A	Not applicable to this program.
<i>Score explanation:</i> There are a variety of recycling bins that are located throughout the nursing building that are easily accessible to both students and faculty.	

6. Are there sustainability requirements or guidelines for events, simulations, or training hosted by the nursing program?	
2	There are sustainability requirements that must be adhered to.
1	There are sustainability guidelines which are recommended.
0	There are no sustainability criteria or guidelines.
N/A	Not applicable to this program.
<i>Score explanation:</i> No evidence of sustainability guidelines were found.	

7. Has your institution pledged to become fossil-free and have a plan for divestment?	
2	The institution is entirely divested from fossil fuels.
1	The institution has partially divested from fossil fuel companies or has made a commitment to divest from fossil fuel investments.
0	The institution has not divested from fossil fuel companies.
N/A	Not applicable to this program.
<i>Score explanation:</i> No evidence could be identified that TWU has pledged to become fossil-free.	

8. Does your school promote sustainable practices during demonstration, practice and assessment of clinical skills?	
2	Yes, sustainable practices have been implemented in clinical skills areas.

1	There are plans to implement sustainable practices in clinical skills areas but these have not yet been implemented.
0	There are no efforts to make clinical skills areas more sustainable.
N/A	Not applicable to this program.
<p><i>Score explanation:</i></p> <p>The program holds to the practice of re-use of supplies as much as possible. There is an emphasis on reusing supplies during certain clinical practice demonstrations. New supplies are normally used during a new skill or during a clinical assessment. Additionally, certain reusable supply kits are purchased for students to reuse throughout their clinical practice.</p>	

9. Does your nursing school highlight the environmental and health co-benefits of a sustainable lifestyle, e.g. plant-based diet, sustainable agriculture principles?	
2	This topic was explored in depth by the core curriculum.
1	This topic was briefly covered in the core curriculum.
0	This topic was not covered.
N/A	Not applicable to this program.
<p><i>Score explanation:</i> No evidence of this topic could be identified.</p>	

10. Does your program identify ways to advocate and mitigate for sustainable best practices in health care?	
2	This topic was explored in depth by the core curriculum.
1	This topic was briefly covered in the core curriculum.
0	This topic was not covered.
N/A	Not applicable to this program.
<p><i>Score explanation:</i></p> <p>NURS 227: Global Health, Humanitarianism and Global Missions- This consistently includes ways in which students can advocate and mitigate for sustainable practices within and outside of the hospital setting. Course instructors regularly include practical examples in how students can enact this within their practice and how they can advocate for broader institutional change.</p>	

11. Does your program apply sustainability criteria when making decisions about supply procurement?

2	There are sustainability criteria that must be met for supply procurement.
1	There are sustainability guidelines for supply procurement but these are optional.
0	There are no sustainability guidelines or criteria for supply procurement.
N/A	Not applicable to this program.

Score explanation: There are no sustainability guidelines or criteria for supply procurement in the program. Nursing lab Coordinators have no budgetary guidelines to purchase from sustainable suppliers and a budget increase would be needed to incentivize sustainable procurement.

Section Total (9 out of 22)

(40.9%) C-

Grading

Section Overview

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

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

Planetary Health Grades for the Trinity Western University School of Nursing

The following table presents the individual section grades and overall institutional grade for the **Trinity Western University School of Nursing** on this nursing-school-specific Planetary Health Report Card.

Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	$(34/40) \times 100 = 85\%$	A
Interdisciplinary Research (17.5%)	$(10/14) \times 100 = 71\%$	B
Community Outreach and Advocacy (17.5%)	$(7/12) \times 100 = 58\%$	C+
Support for Student-led Planetary Health Initiatives (17.5%)	$(9/12) \times 100 = 75\%$	B+
Campus Sustainability (17.5%)	$(9/22) \times 100 = 41\%$	C-
Institutional Grade	$(85 \times 0.3 + 71 \times 0.175 + 58 \times 0.175 + 75 \times 0.175 + 41 \times 0.175) = 68\%$	B

Resources

Planetary Health Alliance. Retrieved February 26, 2022, from ` <https://www.planetaryhealthalliance.org/planetary-health>

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