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# **Planetary Health Report Card:** *University of Exeter Medical School*

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2021-2022 Contributing Team:

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## Summary of Findings

<b>Overall</b>	<b>B</b>
<b><u>Curriculum</u></b>	<b>B</b>
<ul style="list-style-type: none"> <li>• The medical school has actively engaged in the need for improved planetary health content. The inclusion of a study unit in the second year titled ‘Global Planetary Health’ in the core curriculum ensures Exeter medical students have a strong grounding in the significance of planetary health.</li> <li>• The establishment of the Planetary Health Thematic Forum which includes senior management is working hard to guide the medical school to continue making improvements. It also encompasses other degree programmes in the College of Medicine and Health (Nursing, Medical Sciences, Medical Imaging).</li> <li>• There is still room for improvement in terms of the longitudinal inclusion of planetary health and sustainability. The inclusion of clear learning objectives in relevant lectures such as respiratory medicine or diet and nutrition could provide formal opportunities to educate students on the complexity of climate change and human health.</li> </ul>	
<b><u>Interdisciplinary Research</u></b>	<b>A</b>
<ul style="list-style-type: none"> <li>• The European Centre for Environment and Human Health (ECEHH) is part of the University of Exeter Medical School (UEMS). There are multiple members of faculty carrying out interdisciplinary PH research, details of which are outlined on their website.</li> <li>• ECEHH has excellent public engagement, its ‘HEPE’ group has a significant role in shaping research and has been utilised by other institutions, including the London School of Hygiene and Tropical Medicine.</li> </ul>	
<b><u>Community Outreach and Advocacy</u></b>	<b>C+</b>
<ul style="list-style-type: none"> <li>• The Public Engagement in Medical Education (PIME) group at Exeter is well established, and now has two members with interests in sustainability and planetary health.</li> <li>• There are limited patient and community-facing educational resources but this provides an opportunity for a student-led quality improvement project.</li> </ul>	
<b><u>Support for Student-Led Initiatives</u></b>	<b>B</b>
<ul style="list-style-type: none"> <li>• The University of Exeter has multiple resources online if students wish to get involved in PH initiatives</li> <li>• There is no direct financial support for student-led PH initiatives. Two societies exist at the University that run events for medical students touching on topics such as planetary health and environmental factors.</li> <li>• Year 3 students are required to undertake an ‘Improving Healthcare’ project including a business proposal. This provides an opportunity to encourage students to consider the sustainability of quality improvement projects.</li> </ul>	
<b><u>Campus Sustainability</u></b>	<b>A-</b>
<ul style="list-style-type: none"> <li>• The University of Exeter has declared a Climate Emergency and has published a working paper outlining their roadmap to completely net-zero by 2050.</li> <li>• There is an established Sustainability Office, but no paid member specifically for the medical school.</li> </ul>	

# Statement of Purpose

*Planetary health is human health.*

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

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

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

# Definitions & Other Considerations

## Definitions:

- **Planetary Health:** is described by the *Planetary Health Alliance* as “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.” 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.
- **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 vs. Institution:** When “medical school” is specified in the report card, this only refers to curriculum and resources offered by the School of Medicine and does not include offerings from other parts of the university (for example, undergraduate departments (USA), other related departments eg Public Health, Population Health departments). In contrast, when “institution” is specified in the report card, we are referring to the university more broadly. 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 (Metric 19 in curriculum section):** This is a series of questions providers 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.
- **Elective:** The word "elective" refers to an optional course or lecture series that a medical student can opt to take part in but is not a requirement in the core curriculum. Generally, these elective courses take place in the preclinical curriculum but vary by school.
- **Clerkship:** This is a term used in the USA to refer to placements that medical students go on e.g. Paediatrics, General medicine, Psychiatry. In the UK these are referred to as rotations or placements.

**Other considerations:**

- If there are more than one "tracks" at your medical school 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 example).

**Added to our resources this year, the Planetary Health Report Card Literature Review by Metric collates the evidence behind each of the metrics in the Planetary Health Report Card. It serves as a collection of references for further learning and a resource for those advocating for increased planetary health engagement at their institutions.**

# Planetary Health Curriculum

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

## *Curriculum: General*

<b>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?</b>	
<b>3</b>	<b>Yes, the medical school has offered more than one elective whose primary focus is ESH/planetary health in the past year.</b>
2	Yes, the medical school has offered one elective whose primary focus is ESH/planetary health in the past year.
1	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.
0	No, the medical school has not offered any electives on planetary health or electives that include ESH/planetary health topics in the past year.
<p><i>Score explanation:</i>            UEMS delivers one compulsory Special Study Unit (SSU) in 2nd year on 'Global and Planetary Health' (GPH), which is a 3 week course. This SSU started 2020/21 academic year. Within this there are multiple elective options that students can select, including 'Extreme Weather and Public Health', 'Climate, Air Pollution and Health', 'Impact of Climate Change for Health and Health Care Systems' and 'Global and Planetary Health'. All of the Global and Planetary Health SSUs concern human health effects placed in a broader (global and or planetary) context.</p>	

## *Curriculum: Health Effects of Climate Change*

<b>2. Does your medical school curriculum address the relationship between extreme heat, health risks, and climate change?</b>	
3	This topic was explored in depth by the core curriculum.

2	<b>This topic was briefly covered in the core curriculum.</b>
1	This topic was covered in elective coursework.
0	This topic was not covered.
<p><i>Score explanation:</i>  A lecture in year one titled 'Social Class and Health' briefly covers the 1995 Chicago heatwave as an example of how social class impacts public health.</p> <p>As part of the GPH SSU, there is a lecture on 'Introduction to Planetary Health'. This lecture references how climate change leads to health risks from extreme temperature exposure on one slide, though the mechanism of this is not fully explored.</p> <p>A video masterclass called 'Environment, Climate Change and Global Health' aimed at 3rd years, briefly highlights how climate change leads to increased likelihood of heat related deaths and illness on two slides.</p>	

<b>3. Does your medical school curriculum address the impacts of extreme weather events on individual health and/or on healthcare systems?</b>	
3	<b>This topic was explored in depth by the core curriculum.</b>
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.
<p><i>Score explanation:</i>  The lecture 'Introduction to Planetary Health' as part of the GPH SSU references how climate change leads to extreme weather events which have associated 'health risks' on one slide, though these health risks are not expanded upon. There is no mention of the broader impact this will have on healthcare systems. Additional resources are provided on the main GPH SSU site, including links to the <a href="#">World Disasters Report 2020</a>, highlighting the humanitarian impact of climate change and extreme weather.</p> <p>The masterclass 'Environment, Climate Change and Global Health' very briefly references how climate change leads to an increased likelihood of extreme weather events on one slide. Though this is mentioned in the context of increased health risks and potential impacts, this is not explored in any detail.</p> <p>An elective option in the GPH SSU is titled 'Extreme Weather and Public Health', and explores this metric in depth. Another elective option for this SSU is titled 'Wildfires and Human Health', specifically exploring this one extreme weather event and the impact on healthcare systems.</p>	

**4. Does your medical school curriculum address the impact of climate change on the changing patterns of infectious diseases?**

<b>3</b>	<b>This topic was explored in depth by the core curriculum.</b>
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.

*Score explanation:*

*The masterclass ‘Environment, Climate Change and Global Health’ briefly highlights the predicted expansion of malaria due to climate change. There is also a slide stating the worsening distribution of water-borne diseases and vector diseases, however no explanation of why or the impacts this will have.*

*The 2nd year lecture ‘Public Health, Planetary Health, Global Warming and Emerging Infections’ explores the impact of climate change on patterns of disease and emerging infections.*

*An elective option in the GPH SSU is titled ‘Emerging Infectious Diseases’, and explores this metric in depth.*

**5. Does your medical school curriculum address the respiratory health effects of climate change and air pollution?**

3	This topic was explored in depth by the core curriculum.
<b>2</b>	<b>This topic was briefly covered in the core curriculum.</b>
1	This topic was covered in elective coursework.
0	This topic was not covered.

*The lecture ‘Introduction to Planetary Health’ references the general health effects of climate change and air pollution on multiple slides, mostly highlighting the premature mortality effects. There is little exploration of the mechanism by which air pollution impacts the cardiorespiratory system.*

*The masterclass ‘Environment, Climate Change and Global Health’ references how air pollution increases mortality, though this is not addressed in great detail, and there is no exploration of the mechanics of this in the context of the cardiorespiratory system.*

*An elective option in the GPH SSU is titled ‘Climate, Air Pollution and Health’, which addresses this metric.*



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<b>6. Does your medical school curriculum address the cardiovascular health effects of climate change, including increased heat?</b>	
3	This topic was explored in depth by the core curriculum.
<b>2</b>	<b>This topic was briefly covered in the core curriculum.</b>
1	This topic was covered in elective coursework.
0	This topic was not covered.
<i>Score explanation: A lecture in year one titled 'Social Class and Health' briefly covers the 1995 Chicago heatwave and the health effects of increased heat. Although there is no specific mention of the cardiovascular health effects.</i>	

<b>7. Does your medical school curriculum address the mental health and neuropsychological effects of environmental degradation and climate change?</b>	
3	This topic was explored in depth by the core curriculum.
<b>2</b>	<b>This topic was briefly covered in the core curriculum.</b>
1	This topic was covered in elective coursework.
0	This topic was not covered.
<i>Score explanation: The lecture 'Introduction to Planetary Health' briefly mentions the impact of the climate crisis on wellbeing.</i>	
<i>There are multiple elective options in the GPH SSU which address this metric in part. One is titled 'Wildfires and Human Health', it involves the students thinking about the effect wildfires have on people's mental health. Another option is titled 'Global Environmental Health Inequalities' and this involves students selecting a specific global environmental health inequality issue to investigate-they can choose to explore mental health here. Another option is titled 'Health and Housing' and this links wellbeing and housing conditions. A further option is titled 'Global and Planetary Health', and this explores the social determinants of health and uses case studies to explore physical and mental health inequalities.</i>	

**8. Does your medical school curriculum address the relationships between health, individual patient food and water security, ecosystem health, and climate change?**

3	<b>This topic was explored in depth by the core curriculum.</b>
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.

*Score explanation: The 'Introduction to Planetary Health' lecture addressed the links between health, the ecosystem and climate change.*

*The masterclass 'Environment, Climate Change and Global Health' discusses the relationship between climate change and its impacts upon food and water security and the consequences relating to health.*

*An elective option in the GPH SSU is 'The water cycle and human health, present and future'. This SSU uses case studies to explore the future impact of changing rainfall on human health. Another GPH SSU option is 'Water and Health: the water engineering that keeps civilizations flowing' which links the importance of water supply and health.*

**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?**

3	This topic was explored in depth by the core curriculum.
2	<b>This topic was briefly covered in the core curriculum.</b>
1	This topic was covered in elective coursework.
0	This topic was not covered.

*Score explanation: The 'Introduction to Planetary Health' lecture addressed the inequalities in impact of climate change, links between health, though this is not discussed specifically in relation to any of the populations mentioned.*

*A lecture in year one titled 'Social Class and Health' briefly covers the 1995 Chicago heatwave as an example of how social class impacts public health and how certain populations were disproportionately affected.*

**10. Does your medical school curriculum address the unequal regional health impacts of climate change globally?**

3	This topic was explored in depth by the core curriculum.
2	<b>This topic was briefly covered in the core curriculum.</b>
1	This topic was covered in elective coursework.
0	This topic was not covered.

*Score explanation: The masterclass ‘Environment, Climate Change and Global Health’ addresses the inequalities in relation to the impact of climate change. It more specifically focuses on the disproportionate effect on the Global South.*

*The ‘Introduction to Planetary Health’ lecture also explains the inequalities between which countries produce the most greenhouse gases and which will be most affected by climate change. It also discussed the use of child labour in parts of the world in the production of medical equipment.*

*There are multiple elective options to study the unequal health impacts of climate change within the GPH SSU. Specifically the options titled:*

- *‘Extreme Weather and Public Health’, as extreme weather is a consequence of the climate crisis, this SSU requires the student to explore the impact of extreme weather on health. This will naturally lead to them exploring the impact of climate change globally.*
- *‘Antimicrobial resistance and environmental pollution’ explores how LMIC are disproportionately affected by antimicrobial resistance and environmental pollution.*
- *‘Impact of climate change for health and healthcare systems’ uses secondary data to examine the impact of climate change on public health globally.*
- *‘Global Environmental Health Inequalities’ involves investigation into environmental health inequalities.*
- *‘Global Health and Trade’ explores how international trade impacts upon health and the power imbalances involved in it. An example of this is the marketing of tobacco in LMIC from British and American companies.*
- *‘Global and Planetary Health’ uses case studies to explore the social determinants of health and health inequalities and the role of climate change.*
- *‘Global Health Partnerships’ explores the importance of supportive and collaborative working within LMIC.*
- *‘Human migration and health a global perspective’ considers the effect of climate change forcing migration and the associated health effects.*

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

<b>11. Does your medical school curriculum address the reproductive health effects of industry-related environmental toxins (e.g. air pollution, pesticides)?</b>	
3	This topic was explored in depth by the core curriculum.
2	This topic was briefly covered in the core curriculum.

1	This topic was covered in elective coursework.
<b>0</b>	<b>This topic was not covered.</b>
<i>Score explanation: not covered</i>	

<b>12. Does your medical school curriculum address important human-caused environmental threats that are relevant to the university's surrounding community?</b>	
3	This topic was explored in depth by the core curriculum.
<b>2</b>	<b>This topic was briefly covered in the core curriculum.</b>
1	This topic was covered in elective coursework.
0	This topic was not covered.
<p><i>Score explanation:</i>  <i>UEMS has several year 2 and year 3 SSU elective options which briefly cover this area, for example 'Disabling environments, encounters and environmental change', 'Get on your bike and save the world', 'Microbial pollution of aquatic environments', 'Impact of climate change for health and health care systems' 'Climate, Air Pollution and Health.' 'Social and Environmental Epidemiology for Population Health'</i>  <i>A tutorial titled environmental lung disease covers asbestos lung disease and hypersensitivity pneumonitis.</i></p>	

<b>13. To what extent does your medical school emphasise the importance of Indigenous knowledge and value systems as essential components of planetary health solutions?</b>	
3	Indigenous knowledge and value systems are integrated throughout the medical school's planetary health education
2	Indigenous knowledge and value systems as essential components of planetary health solutions are included briefly in the core curriculum.
1	Indigenous knowledge and value systems as essential components of planetary health solutions are included in elective coursework.
<b>0</b>	<b>This topic was not covered.</b>
<i>Score explanation: not covered</i>	

<b>14. Does your medical school curriculum address the outsized impact of anthropogenic environmental toxins on marginalised populations such as those with low SES, women,</b>	
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<b>communities of colour, children, homeless populations, Indigenous populations, and older adults?</b>	
<b>3</b>	<b>This topic was explored in depth by the core curriculum.</b>
2	This topic was briefly covered in the core curriculum.
1	This topic was covered in elective coursework.
0	This topic was not covered.
<p><i>Score explanation: a number of lectures in the core curriculum 'Social class and health', 'Child health and inequalities' 'Men, masculinities and health' make references to the impact different social determinants can have on populations exposed to pollutants and poorer living conditions or industrial exposure.</i></p>	

***Curriculum: Sustainability***

<b>15. Does your medical school curriculum address the environmental and health co-benefits of a plant-based diet?</b>	
3	This topic was explored in depth by the core curriculum.
<b>2</b>	<b>This topic was briefly covered in the core curriculum.</b>
1	This topic was covered in elective coursework.
0	This topic was not covered.
<p><i>Score explanation: In year 2 a problem-based scenario within the core curriculum covers the consumption of meat and bowel cancer requiring students to explore this link. The link to the beneficial climate impact is not made.</i></p> <p><i>A Year 1 lecture titled 'Microbiome' comments on the impact of diet on the microbiome and subsequently health. A seminar on 'Balanced diet in the life course' aims to understand the role of macronutrients in human physiology and how nutritional needs vary during the life course. The lecture notes are not available to fully evaluate the mention of a plant-based diet.</i></p> <p><i>Options during the GPH SSU include 'Planetary renal health' which involves a session with renal dieticians looking at plant-based renal diets. Another option is 'Cooking for Climate' which explores the symbiotic relationship between a plant-based diet and human health with reference to the EAT-Lancet report.</i></p>	

<b>16. Does your medical school curriculum address the carbon footprint of healthcare systems?</b>	
3	This topic was explored in depth by the core curriculum
2	This topic was briefly covered in the core curriculum.

1	<b>This topic was covered in elective coursework.</b>
0	This topic was not covered.
<p><i>Score explanation: There is a GPH SSU option titled 'Antimicrobial resistance and environmental pollution. This discusses different pollution sources of antibiotics and other chemicals including pharmaceutical or manufacturing waste, and how humans and animals are becoming infected with resistant bacteria. However, this is specific to microbial waste, and does not highlight general waste generated by the healthcare system, nor ways to advocate for sustainable best practices.</i></p>	

<b>17. Does your medical school curriculum cover these components of sustainable clinical practice in the <u>core</u> curriculum? (1 point each)</b>	
1	Waste production within the healthcare system and strategies for reducing waste in clinical activities, such as in the operating room
1	<b>The impact of inhalers on the healthcare carbon footprint and the environmental benefit of dry powdered inhalers over metered dose inhalers.</b>
1	The impact of anaesthetic gases on the healthcare carbon footprint and ways to reduce anaesthesia environmental impacts, such as total intravenous anaesthesia or choosing less environmentally anaesthetic gas options with reduced greenhouse gas emissions
1	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.
1	<b>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 for obesity. This is commonly known as social prescribing in the UK.</b>
1	<b>The health and environmental co-benefits of avoiding over-medicalisation, over-investigation and/or over-treatment</b>
<p><i>Score explanation: The environmental impact of inhalers is briefly mentioned in the Asthma therapeutics lecture.</i></p> <p><i>There is a lecture in Year 3 which includes interactive breakout rooms on social prescribing in GP. A lecture on polypharmacy and how to reduce it touches on the environmental impact of over prescribing.</i></p>	

*Curriculum: Clinical Applications*

<b>18. In training for patient encounters, does your medical school’s curriculum introduce strategies to have conversations with patients about the health effects of climate change?</b>	
2	Yes, there are strategies introduced for having conversations with patients about climate change in the core curriculum.
1	Yes, there are strategies introduced for having conversations with patients about climate change in elective coursework.
0	<b>No, there are not strategies introduced for having conversations with patients about climate change</b>
<i>Score explanation: The lecture ‘Introduction to Planetary Health’ has a slide on the importance of talking to patients about climate change, but offers no clear strategies for having these conversations.</i>	

<b>19. In training for patient encounters, does your medical school’s curriculum introduce strategies for taking an environmental history or exposure history?</b>	
2	<b>Yes, the core curriculum includes strategies for taking an environmental history.</b>
1	Only elective coursework includes strategies for taking an environmental history.
0	No, the curriculum does not include strategies for taking an environmental history.
<i>Score explanation: At UEMS, students are taught how to take a full social history, which includes asking patients about their occupation, hobbies and living situation. This highlights environmental factors that patients may be exposed to that could affect their clinical condition or predispose them to a particular disease (e.g. coal mining and pneumoconiosis). Students have the opportunity to practice their history-taking skills with actors in the clinical skills lab and are provided with feedback on their performances. Students are also assessed on their ability to take a social history during frequent in-vitro and in-vivo clinical assessments.</i>	

*Curriculum: Administrative Support for Planetary Health*

<b>20. Is your medical school currently in the process of implementing or improving Education for Sustainable Healthcare (ESH)/planetary health education?</b>
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4	<b>Yes, the medical school is currently in the process of making major improvements to ESH/planetary health education.</b>
2	Yes, the medical school is currently in the process of making minor improvements to ESH/planetary health education.
0	No, there are no improvements to planetary health education in progress.

*Score explanation: The medical school now has a Planetary Health Thematic forum which includes the associate Dean, Education business partner, Education and Skills Partnership Development Manager, a member of the University's Environment and Climate Emergency team and an intercalating medical student involved in PHRC. The team presented at the Educational Strategy Meeting for the Medical school and got programme leads from Medicine, Nursing, Medical Imaging and Medical Sciences to consider the inclusion of climate and planetary health in their degrees.*

*An online event titled 'Using education to power our sustainable future: Why we need to do more than just talk about planetary health and Sustainable Development Goals' for staff at the medical school aimed to educate on the importance of including planetary health in the curriculum and showcased how students can be change-makers. The event was a direct response to the PHRC.*

**21. How well are the aforementioned planetary health/Education for Sustainable Healthcare topics integrated longitudinally into the core curriculum?**

6	<b>Planetary health/ESH topics are well integrated into the core medical school curriculum.</b>
4	Some planetary health/ESH topics are appropriately integrated into the core medical student curriculum.
2	Planetary health/ESH is not integrated and is primarily addressed in (a) standalone lecture(s).
0	There is minimal/no education for sustainable healthcare.

*Score explanation: The 3 week GPH SSU in second year embeds planetary health firmly in the core curriculum. As mentioned above there are a number of lectures throughout the 5 year degree which have a planetary health focus. There are also elective SSU options within the Research module in third year; Improving health care module in third year and the Medical humanities module in fourth year which offer an opportunity to focus on climate change and planetary health.*

**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?**

1	<b>Yes, the medical school has a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare</b>
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0	No, the medical school does not have a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare.
<i>Score explanation: There is no specific member of faculty appointed this role, but the Planetary Health Thematic Forum undertakes this role.</i>	

<b>Section Total (48 out of 69)</b>	<b>48</b>
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## Interdisciplinary Research

***Section Overview:*** This section evaluates the quality and quantity of interdisciplinary planetary health research at the medical school and 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, medical schools 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.

1.Are there researchers engaged in planetary health research and healthcare sustainability research at your medical school?	
3	<b>Yes, there are faculty members at the School of Medicine who have a primary research focus in planetary health or healthcare sustainability.</b>
2	Yes, there are individual faculty members at the School of Medicine who are conducting research related to planetary health or healthcare sustainability, but it is not their primary research focus.
1	There are planetary health and/or healthcare sustainability researchers at the institution, but none associated with the medical school.
0	No, there are no planetary health and/or healthcare sustainability researchers at the institution or medical school at this time.
<p><i>Score explanation: There are a variety of researchers and faculty at the European Centre for Environment and Human Health (ECEHH), which is part of UEMS. A select few are below.</i></p> <ul style="list-style-type: none"> <li>● <i>Dr Benedict Wheeler has primary research specialism of environmental epidemiology to investigate environment and human health and geographical health inequalities.</i></li> <li>● <i>Dr Tim Taylor has primary research specialism in environmental and health economics.</i></li> <li>● <i>Dr Sian de Bell is working in research on 'Informing environmental investment for health and wellbeing' project. Her interests include the role of the environment in determining health and the translation of green space-health research into policy and planning.</i></li> <li>● <i>Professor Michael Depledge is leading research teams on projects relating to the impacts of climate change on human health and wellbeing, emerging environmental chemicals and human health and many more.</i></li> </ul> <p><i>ECEHH website: <a href="https://www.ecehh.org">https://www.ecehh.org</a></i></p> <p><i>There is also the intercalation option of Masters in Environment and Human Health which has modules on sustainable development, climate change and environment and human health. This is led by Dr Cornelia Guell and Dr Benedict Wheeler. You can find out more information about the course here: <a href="https://www.exeter.ac.uk/postgraduate/courses/medicine/environment-health-msc/">https://www.exeter.ac.uk/postgraduate/courses/medicine/environment-health-msc/</a></i></p>	

**2. Is there a dedicated department or institute for interdisciplinary planetary health research at your institution?**

<b>3</b>	<b>There is at least one dedicated department or institute for interdisciplinary planetary health research.</b>
2	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.
1	There is an Occupational and Environmental Health department, but no interdisciplinary department or institute for planetary health research.
0	There is no dedicated department or institute.

*Score explanation: The [European Centre for Environment and Human Health \(ECEHH\)](#) is part of UEMS, and conducts research on the interactions between the environment and human health. The centre is supported by the European Regional Development Fund and European Social Fund Convergence programme for Cornwall and the Isles of Scilly. The two main aims of their research are the emerging threats to health and wellbeing posed by the environment, and the health and wellbeing benefits the natural environment can provide. They have experts from diverse disciplines that include epidemiology, policy analysis, systematic reviews, health economics, psychology and microbiology.*

**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 medical school?**

<b>3</b>	<b>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.</b>
<b>2</b>	<b>Yes, there is a process in which community members impacted by climate and environmental injustice advise the climate + environmental research agenda.</b>
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.

*Score explanation: The ECEHH, which is part of UEMS, has a [Health and Environment Public Engagement \(HEPE\) group](#). This is made up of members of the public who live in the South West and who have an interest in research about the interconnections between environment and health. It consults ECEHH, ensuring that the work of ECEHH considers the public perspective, from design and conduct to dissemination. There is no evidence they have decision-making power in the research agenda. There is also a [Peninsula Public Engagement Group \(PenPEG\)](#), involving members of the public in research in the South West Peninsula more broadly.*

**4. Does your institution have a planetary health website that centralises ongoing and past research related to health and the environment?**

<b>3</b>	<b>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.</b>
2	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.
1	The institution has an Office of Sustainability website that includes some resources related to health and the environment.
0	There is no website.

*Score explanation: UEMS has a website for the [ECEHH](#) which includes research articles, blog posts, current researchers/staff and upcoming events.*

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

<b>4</b>	<b>Yes, the medical school has hosted at least one conference or symposium on topics related to planetary health in the past year.</b>
3	Yes, the <b>institution</b> has hosted at least one conference or symposium on topics related to planetary health in the past year.
2	Yes, the institution has hosted a conference on topics related to planetary health in the past three years.
1	The institution has not hosted any conferences directly, but they have provided financial support for a local planetary health event.
0	No, the institution has not hosted a conference on topics related to planetary health in the past three years.

*Score explanation: An online event titled 'Education for Sustainable Healthcare' aimed at faculty development engaged participants on the importance of including planetary health in the curriculum. In June 2021 Grand Challenges was held with the overarching theme being Planetary Health. Grand Challenges is a week long interdisciplinary group project where students work to develop innovative solutions to real world challenges- grounded in the SDGs.*  
<https://www.exeter.ac.uk/careers/employability-schemes/challengesonline/challenges2021/planetaryhealth/>  
*The virtual Exeter Summit in October 2021 titled 'Building Better Together' included a specific Planetary Health session.*

**6. Is your medical school a member of a national or international planetary health or ESH organisation?**

<b>1</b>	<b>Yes, the medical school is a member of a national or international planetary health or ESH organisation</b>
0	No, the medical school is not a member of such an organisation

*Score explanation: The University of Exeter is a member of the Planetary Health Alliance*

**Section Total (16 out of 17)**

**16**

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## Community Outreach and Advocacy

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

<b>1. Does your medical school partner with community organisations to promote planetary and environmental health?</b>	
<b>3</b>	<b>Yes, the medical school meaningfully partners with multiple community organisations to promote planetary and environmental health.</b>
2	Yes, the medical school meaningfully partners with one community organisation to promote planetary and environmental health.
1	The institution partners with community organisations, but the medical school is not part of that partnership.
0	No, there is no such meaningful community partnership.
<p><i>Score explanation: <a href="#">ECEHH</a> has good community links for research in planetary and environmental health, including the HEPE group, but not specifically in health promotion activities. The medical school has a PIME (Public involvement in Medical Education) group with 2 members taking a specific interest in planetary health and sustainability. They have met on several occasions with the students involved in the PHRC and there is now communication between them and the Planetary Health Thematic Forum. Through these links an event in collaboration with Exeter Dementia Alliance was held and 10 medical students will be undertaking the <a href="#">Exeter Dementia walking challenge</a> to fundraise.</i></p> <p><i>In some of the elective SSU options in the Global and Planetary health module students work with members of community organisations for example 'Climate, Air Pollution and Health' works with Greenpeace, 'Human Migration and Health a Global Perspective' engages members of the Migrant Solidarity Group.</i></p>	

<b>2. Does your medical school offer community-facing courses or events regarding planetary health?</b>	
3	The medical school offers community-facing courses or events at least once every year.

2	The medical school offers courses or events open to the community at least once per year, but they are not primarily created for a community audience.
1	<b>The institution has offered community-facing courses or events, but the medical school was not involved in planning those courses or events.</b>
0	The medical school has not offered such community-facing courses or events.
<i>Score explanation: The University of Exeter Global Systems Institute hosts several events and seminars during the year on planetary and environmental health issues. These are free and open to the public, but are not specifically part of the medical school.</i>	

<b>3. Does your medical school have regular coverage of issues related to planetary health and/or sustainable healthcare in university update communications?</b>	
2	Yes, all students regularly receive communication updates dedicated to planetary health and/or sustainable healthcare.
1	<b>Yes, planetary health and/or sustainable healthcare topics are sometimes included in communication updates.</b>
0	Students do not regularly receive communications about planetary health or sustainable healthcare.
<i>Score explanation: Planetary health and sustainable healthcare issues are often mentioned and focussed upon within articles in the Exeter University College of Medicine and Health News updates and the College of Medicine and Health Student Newsletter.</i>	

<b>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?</b>	
2	<b>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.</b>
1	Yes, the institution or main affiliated hospital trust offers one course relating to planetary health and/or sustainable healthcare for post-graduate providers
0	There are no such accessible courses for post-graduate providers
<i>Score explanation: A CPD course titled '<a href="#">Nature, Health and Wellbeing</a>' covers how natural environments can benefit physical and mental health. This is a four day course.</i>	

The [NHS Ocean](#) event explored the impacts of the healthcare sector on the ocean and provided examples of communities involved in conservation of the oceans and the benefits which can be derived from them.

**5. Does your medical school or its primary affiliated hospital have accessible educational materials for patients about environmental health exposures?**

2	Yes, all affiliated hospitals have accessible educational materials for patients.
1	Some affiliated hospitals have accessible educational materials for patients.
<b>0</b>	<b>No affiliated medical centres have accessible educational materials for patients.</b>

*Score explanation: Cannot identify or obtain educational materials regarding environmental health exposures*

**6. Does your medical school or its primary affiliated hospital have accessible educational materials for patients about climate change and health impacts?**

2	Yes, all affiliated hospitals have accessible educational materials for patients.
<b>1</b>	<b>Some affiliated hospitals have accessible educational materials for patients.</b>
0	No affiliated hospitals have accessible educational materials for patients.

*Score explanation: The Royal Devon and Exeter Hospital has an educational video on climate change and health aimed at patients and the community. Their health library also has a page on Climate Change resources which identifies books, articles and websites which can educate on climate change and health. However these feel more appropriate for an academic audience.*

<b>Section Total (8 out of 14)</b>	<b>8</b>
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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.*

<b>1. Does your institution offer support for medical students interested in enacting a sustainability initiative/QI project?</b>	
2	Yes, the institution <i>either</i> offers grants for students to enact sustainability initiatives/QI projects <i>or</i> sustainability QI projects are part of the core curriculum.
1	<b>The medical school 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.</b>
0	No, the institution does not offer opportunities or support for sustainability initiatives or QI projects.

*Score explanation: Students can bring any initiative to medical school faculty, and these are directed to the most appropriate medical school committee for feedback and support. The vast majority of initiatives are supported and enacted, but the main difficulty is continuity with initiatives after lead students graduate. There is no funding money set aside for student initiatives generally, but funds can be sourced and redistributed from other areas if the project is very worthwhile and requires investment, so there is some monetary support from the institution.*

*A core curriculum module on Improving Healthcare is undertaken in third year. The project requires students to propose a QIP and undertake a business proposal. However, the project does not specifically require them to consider the sustainability of the project which could be an area for improvement.*

<b>2. Does your institution offer opportunities for medical students to do research related to planetary health and/or sustainable healthcare?</b>	
2	<b>The institution has a specific research program or fellowship for students interested in doing planetary health/sustainable healthcare research.</b>
1	There are research opportunities for students to perform research related to planetary health/sustainable healthcare but these require student initiative to seek these out and carry them out in their spare time.

0	There are no opportunities for students to engage in planetary health/sustainable healthcare research.
<p><i>Score explanation: The year 2 SSU theme 'Global and Planetary Health' includes multiple different SSUs options in this field for students to choose from and do research in. These are part of the core medical school curriculum, therefore all students have the opportunity to spend 3 weeks on a planetary health focussed research project.</i></p> <p><i>There are intercalating options, including a Masters of Public Health, which has a module on planetary health, and enables students to produce a research project within the area of public health. Another intercalation option is the Masters of Environment and Human Health which provides an opportunity to undertake Masters level research in planetary health.</i></p> <p><i>The <a href="#">INSPIRE research studentships</a> offer some funding for research projects, and are open for any UEMS students to apply with a research proposal. The Exeter PHRC team were unable to find out if planetary health research proposals would explicitly be included within this.</i></p>	

<b>3. Does the medical school have a webpage where medical students can find specific information related to planetary health and/or sustainable healthcare activities and mentors within the medical school? For example, projects achieved, current initiatives underway at the medical school and/or contact of information of potential mentors.</b>	
2	The medical school has a webpage with specific information related to planetary health or sustainable healthcare that includes up-to-date information on relevant initiatives and contact information of potential mentors.
1	<b>There is a medical school webpage that features some information on projects and mentors within planetary health and sustainable healthcare within the medical school, but it lacks key information.</b>
0	There is no medical-school specific webpage for locating planetary health and/or sustainable healthcare projects or mentors.
<p><i>Score explanation: There is a university wide Sustainability webpage covering news, events and how to get involved. The ECEHH website has information on the research it is conducting and the staff involved.</i></p> <p><i>The university also runs a <a href="#">grand challenge</a> every year, and this year the topic is Planetary Health. This encourages students to work in teams to overcome challenges of climate change on certain health conditions, which could be using protocols and technologies.</i></p>	

<b>4. Does your medical school have registered student groups dedicated towards fostering a culture of planetary health engagement, scholarship, and advocacy on campus, supported by faculty</b>
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advisors?	
2	<b>Yes, there is a student organisation with faculty support at my medical school dedicated to planetary health or sustainability in healthcare.</b>
1	Yes, there is a student organisation at my medical school dedicated to planetary health or sustainability in healthcare but it lacks faculty support.
0	No, there is not a student organisation at my institution dedicated to planetary health or sustainability in healthcare.
<p><i>Score explanation: There are two societies, 'Truro Global Health Society' and 'Students for Global Health Exeter' that focus their lectures around topics of planetary health, tropical medicine, infectious disease and humanitarian crises. Both societies are affiliated with the student's guild so are eligible to receive society funding and logistical support.</i></p> <p><i>The Exeter Student's Guild has introduced a sustainability grant, which societies can apply for to run events that increase awareness and enhance sustainable practice.</i></p>	

5. Is there a student liaison representing sustainability interests who serves on a medical school or institutional decision-making council to advocate for curriculum reform and/or sustainability best practices?	
1	<b>Yes, there is a student representative that serves on a medical school or institutional decision-making council/committee.</b>
0	No, there is no such student representative.
<p><i>Score explanation: A medical student is a member of the Planetary Health Thematic forum which aims to increase planetary health in the curriculum and improve sustainability in the medical school. A student sits on the COP27 planning committee.</i></p>	

6. In the past year, has the institution had one or more co-curricular planetary health programs or initiatives in the following categories? (1 point each)	
1	<b>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.</b>
1	<b>Panels, speaker series, or similar events related to planetary health that have students as an intended audience.</b>

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	<b>Cultural arts events, installations or performances related to planetary health that have students as an intended audience.</b>
1	Local volunteer opportunities related to building community resilience to anthropogenic environmental impacts.
1	<b>Wilderness or outdoors programs (e.g., that organise hiking, backpacking, kayaking, or other outings for students)</b>
<p><i>Score explanation: Exeter Community Garden is run by Exeter students in collaboration with the local community which are concerned by the issues of food security and sustainability.</i></p> <p><i>One Chance Left was a poetry project including scientists and health professionals from the university in which poems were written about the climate emergency. These poems were displayed around the city of Exeter including the university and hospital.</i></p> <p><i>There are several student-run societies which facilitate hiking, walking, kayaking, surfing and other outdoor pursuits.</i></p>	

<b>Section Total (11 out of 15)</b>	<b>11</b>
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# Campus Sustainability

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

<b>1. Does your medical school and/or institution have an Office of Sustainability?</b>	
3	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 and/or medical school.
2	<b>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 medical school and/or hospital sustainability.</b>
1	There are no salaried sustainability staff, but there is a sustainability task force or committee
0	There are no staff members or task force responsible for overseeing campus sustainability
<p><i>Score explanation: The University of Exeter has an <a href="#">office of sustainability</a>, employing 8 full-time members of staff and 2 part time. There is not a medical school specific role. The primary hospital has a full time Energy and Sustainability manager.</i></p>	

<b>2. How ambitious is your medical school/institution's plan to reduce its own carbon footprint?</b>	
4	The institution has a stated goal of carbon neutrality by 2030 or earlier and the medical school / institution has a well-defined and adequate plan in place to achieve this goal.
3	<b>Yes, there is a stated carbon neutrality goal by at least 2040 and the medical school/institution has a well-defined and adequate plan in place to achieve this goal.</b>
2	Yes, there is a stated carbon neutrality goal by at least 2040, but the medical school/institution has not created a plan to reach that goal or the plan is inadequate.
1	There is a CO2 emission reduction goal, but it is not one of carbon neutrality.
0	There is no stated goal for reduction of CO2 emissions.

*Score explanation: The University of Exeter has pledged to be carbon neutral for scope 1 and 2 emissions by 2040 (emissions from resources either owned and controlled by the university, or purchased). They are utilising a front-loaded approach, aiming to reduce emissions by 75% by 2030. They are currently on track to reduce emissions by 50% by 2026. There are also plans to reduce scope 3 emissions (indirect) by 50% by 2030 and aiming for net zero by 2050. This is outlined in the [Environment and Climate Emergency Working Group White Paper](#), an independent inquiry commissioned by the University of Exeter, which offers detailed plans and recommendations for how to achieve this.*

**3. Do buildings/infrastructure used by the medical school for teaching (not including the hospital) utilise renewable energy?**

<b>3</b>	<b>Yes medical school buildings are 100% powered by renewable energy</b>
2	Medical school buildings source >80% of energy needs from off-site and/or on-site renewable energy.
1	Medical school buildings source >20% of energy needs from off-site and/or on-site renewable energy.
0	Medical school buildings source <20% of energy needs from off-site and/or on-site renewable energy.

*Score explanation: The University of Exeter has a [green energy Power Purchase Agreement \(PPA\) in partnership with other UK universities](#) that adds to the existing [100% REGO-certified renewable electricity](#) contract that's been in place since 2017.*

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

<b>3</b>	<b>Yes, sustainable building practices are utilised for new buildings on the medical school campus and the majority of old buildings have been retrofitted to be more sustainable.</b>
2	Sustainable building practices are utilised for new buildings on the medical school campus, but most old buildings have not been retrofitted.
1	Sustainable building practices are inadequately or incompletely implemented for new buildings.
0	Sustainability is not considered in the construction of new buildings.

*Score explanation: All University of Exeter buildings utilise the BRE Environmental Assessment Method (BREEAM) as a tool for delivering [sustainable buildings](#). All new builds must achieve an 'Excellent' rating on this scale, and all refurbishments must receive a 'Very Good'.*

<b>5. Has the medical school implemented strategies to encourage and provide environmentally-friendly transportation options for students and reduce the environmental impact of commuting?</b>	
2	<b>Yes, the medical school 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.</b>
1	The medical school has implemented some strategies to provide environmentally-friendly transportation options, but the options are unsatisfactorily accessible or advertised.
0	The medical school has not implemented strategies to encourage and provide environmentally-friendly transportation options.
<p><i>Score explanation: There has been investment to improve cycle parking and changing facilities across Exeter campuses, and the central campus has priority access for pedestrians and cycles. Both Exeter campuses host electrically assisted co-bikes as part of a city wide e-bike network. The university has highlighted well lit paths to encourage walking.</i></p> <p><i>There is a Unirider season ticket which offers an annual reduced price for bus travel. There is a UNI bus service which connects the two Exeter campuses.</i></p> <p><i>There are 3 co-cars which are low-emission cars available for short term hire, there are another 23 co-cars available in the city.</i></p> <p><i>There are 30 electric charging bays available on campus.</i></p>	

<b>6. Does your medical school have an organics recycling program (compost) and a conventional recycling program (aluminium/paper/plastic/glass)?</b>	
2	Yes, the medical school has both compost and recycling programs accessible to students and faculty.
1	<b>The medical school has either recycling or compost programs accessible to students and faculty, but not both.</b>
0	There is no compost or recycling program at the medical school.
<p><i>Score explanation: The University of Exeter has a clear <a href="#">recycling programme</a>, and all general waste is sent to a waste-to-energy plant rather than landfill. Some waste streams are also treated as resources to generate additional revenue for the university. <a href="#">Food waste</a> is collected from all University catering outlets (including catered Halls of residence) and taken to an anaerobic digestion facility, after a trial of on-site anaerobic composting demonstrated the need for a commercial contract for management of food waste, outlined in the general <a href="#">Waste and Recycling Strategy</a>. There is no evidence of a composting programme accessible to students.</i></p>	

**7. Does the medical school apply sustainability criteria when making decisions about the campus food and beverage selections (e.g. local sourcing, reduced meat, decreased plastic packaging)?**

<b>3</b>	<b>Yes, the medical school has adequate sustainability requirements for food and beverages, including meat-free days or no red-meat, and is engaged in efforts to increase food and beverage sustainability.</b>
2	There are sustainability guidelines for food and beverages, but they are insufficient or optional. The medical school is engaged in efforts to increase food and beverage sustainability.
1	There are sustainability guidelines for food and beverages, but they are insufficient or optional. The medical school is not engaged in efforts to increase food and beverage sustainability.
0	There are no sustainability guidelines for food and beverages.

*Score explanation: A [Sustainable Food Policy](#) has been adopted at the University of Exeter. The main objectives of the Sustainable Food Policy are to ensure that where possible, all fresh produce is sourced from local suppliers, that packaging is environmentally-friendly, and that food is ethically sourced. All meat, poultry and milk on campus is sourced from [Red Tractor](#) Assured farms. This means that the meat sold by University venues has been certified as meeting certain safety, hygiene, animal welfare and environmental standards. There has also been effort to liaise with suppliers to increase their environmental performance, and sustainability criteria are used in awarding all contracts with suppliers. In 2019, the University Catering and Retail Services team scored 71% in celebrating local and seasonal as part of the Sustainable Restaurant Association star rating. All seafood purchased is on the MSC Fish to Eat list.*

*The cafe on the Medical school campus has a wide variety of vegan and vegetarian options. All single use products are biodegradable/ compostable or recyclable. There is a levy on single use coffee cups to encourage people to supply their own.*

**8. Does the medical school or associated institution apply sustainability criteria when making decisions about supply procurement?**

<b>3</b>	<b>Yes, the medical school has adequate sustainability requirements for supply procurement and is engaged in efforts to increase sustainability of procurement.</b>
2	There are sustainability guidelines for supply procurement, but they are insufficient or optional. The medical school is engaged in efforts to increase sustainability of procurement.
1	There are sustainability guidelines for supply procurement, but they are insufficient or optional. The medical school is not engaged in efforts to increase sustainability of procurement.
0	There are no sustainability guidelines for supply procurement.



*Score explanation: The University has [sustainability guidelines for supply procurement](#) in the areas of food, construction, paper, travel, utilities and IT. There is a strategy group that regularly convenes to solve sustainable procurement issues.*

**9. Are there sustainability requirements or guidelines for events hosted at the medical school?**

2	Every event hosted at the medical school must abide by sustainability criteria.
1	The medical school strongly recommends or incentivizes sustainability measures, but they are not required.
<b>0</b>	<b>There are no sustainability guidelines for medical school events.</b>

*Score explanation: There is a [Sustainable Event Guide](#) produced for the Student Employability and Academic Success team, which could be applied to all University events. However, the medical school specifically does not have sustainability guidelines for events.*

**10. Does your medical school have programs and initiatives to assist with making lab spaces more environmentally sustainable?**

2	<b>Yes, the medical school has programs and initiatives to assist with making lab spaces more environmentally sustainable.</b>
1	There are guidelines on how to make lab spaces more environmentally sustainable, but not programs or initiatives.
0	There are no efforts at the medical school to make lab spaces more sustainable.

*Score explanation: The university labs are currently undertaking the '[Laboratory efficiency assessment framework](#)' to assess their sustainability. The temperature that the ultra-low freezers operate at has been increased to reduced energy consumption.*

**11. Does your institution's endowment portfolio investments include fossil-fuel companies?**

4	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.
<b>3</b>	<b>No, the institution is entirely divested from fossil fuels.</b>
2	The institution has partially divested from fossil fuel companies or has made a commitment to fully divest, but currently still has fossil fuel investments.

1	The institution has not divested from fossil-fuel companies, but faculty and/or students are conducting organised advocacy for divestment.
0	Yes, the institution has investments with fossil-fuel companies and there have been no efforts to change that.
<i>Score explanation: The university divested fully from fossil fuels in December 2019. There is no clear statement on where the divested funds are going.</i>	

<b>Section Total (25 out of 31)</b>	<b>25</b>
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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+.*

## Planetary Health Grades for the University of Exeter School of Medicine

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

Section	Raw Score	Letter Grade
<b>Planetary Health Curriculum (30%)</b>	$(48 / 69) \times 100 = 70\%$	B
<b>Interdisciplinary Research (17.5%)</b>	$(16 / 17) \times 100 = 94\%$	A
<b>Community Outreach and Advocacy (17.5%)</b>	$(8 / 14) \times 100 = 57\%$	C+
<b>Support for Student-led Planetary Health Initiatives (17.5%)</b>	$(11 / 15) \times 100 = 73\%$	B
<b>Campus Sustainability (17.5%)</b>	$(25 / 31) \times 100 = 81\%$	A-
<b>Institutional Grade</b>	<b>74%</b>	<b>B</b>

# Report Card Trends

## Section Overview

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

