

Appendix

1.1. List of environmentally relevant **PROFILES** items in the revised **PROFILES** catalogue

Based on the publication by Berendonk et al (Swiss Medical Weekly, 2025):

CR 1.08	Integrate the foundations of basic medical sciences into their clinical reasoning and the selection of relevant procedures and investigations, respecting the principles of sustainable healthcare and environment
CR 1.09	establish a patient-centred, shared management plan and deliver high-quality, cost-effective, and sustainable preventive and curative care, including when dealing with a patient who is vulnerable and/or polymorbid (elderly) or who suffers from a terminal illness
CR 1.10	demonstrate safe and environmentally responsible prescribing
CR 1.24	take into account the economic, social, cultural, and ecological aspects of health maintenance prevention and care at individual and community levels
CR 1.27	Integrate sustainable health care into practice (management, procedures and investigations) and recognize the relationship between environment and individual or population health
CR 4.03	recognize and be aware of the complexity of disease outbreaks, epidemics, pandemics, and mass casualties; recognize and respond to climate-induced events.
CR 4.05	address the psychosocial, insurance, financial and environmental aspects of handicap and chronic diseases
CR 4.08	identify and engage in opportunities for continuous improvement of the healthcare system, based on a critical understanding of the continuous transformation of medicine, society, and environment
CR 5.02	incorporate health surveillance activities into interactions with individual patients (discussing lifestyles, counselling). Such activities include, but are not limited to screening, immunization and disease prevention, risk and harm reduction measures, including from environmental hazards, and health promotion
CR 5.03	work with a community or population to identify the determinants of health that affect them, how to address them and promote system-level change in a socially and environmentally accountable manner

CR 5.05	inform the population on the risks of climate change and biodiversity loss on health. Advocate for systemic actions to mitigate these impacts on health and adapt to global changes
EPA 1.08	Review the patient's health behaviour, lifestyle, and environmental risk exposure as part of a routine check-up, or as far as possible, and assess the patient's opinions, representations and expectations
EPA 4.02	Justify an informed, evidence-based rationale for ordering tests (when appropriate, based on integration of basic medical disciplines as they relate to the clinical condition); take into account cost-effectiveness and environmental impact of ordering
EPA 9.07	Contribute to the literacy of patients regarding environmental and ecological safety
EPA 9.08	Assess age-specific environmental risks and propose safety measures (i.e. fall risk in elderly, self-medication)
SSP 07.3	dietary counselling including a healthy and sustainable nutrition
SSP 07.4	environmental and psychosocial aspects of chronic condition

1.2. List of Planetary Health ILOs mapped to PROFILES 2 items

PH Code	PH Intended Learning Outcomes	PROFILES Chapter	PROFILES 2 Code
1	Planetary Health Challenges		
1.1	Knowledge		
1.1.1.	Explain the framework of Planetary Health, its key ideas and how it relates to converging concepts.	CR	1.23
		CR	5.5
1.1.2.	Describe the planetary boundaries and the concept of climate tipping elements.	CR	1.23
		CR	5.5
1.1.3.	Illustrate the impacts of human activity on ecosystems and describe the concept of the Great Acceleration.	CR	1.23
1.1.4.	Analyse hazards related to climate, pollution and biodiversity loss and explain their mechanisms of impact on population health and the health of other species, connecting these impacts to their future professional context.	CR	1.23
		CR	5.2
		CR	5.5
		EPA	7.9
1.1.5.	Analyse the direct and indirect health impacts of planetary crises, explain why some populations are more vulnerable than others and evaluate the implications for professional practice, including gaps in current professional education and training.	CR	1.23
		CR	4.1
		CR	4.4
		CR	4.5
		CR	4.6
		EPA	7.4
		SSP	07.24
1.1.6.	Explain the social, ecological and commercial determinants of health and apply this framework to a relevant Planetary Health case.	CR	1.8
		CR	1.23
		CR	1.24
		CR	4.1
1.1.7.	Describe and apply systems thinking tools to analyse root causes of Planetary Health challenges.	CR	1.23
		CR	1.24
1.1.8.	Explain the socio-political and economic drivers of the Anthropocene and their implications for health equity.	CR	1.24
		CR	4.4

PH Code	PH Intended Learning Outcomes	PROFILES Chapter	PROFILES 2 Code
		CR	4.7
1.1.9.	Discuss how historic emissions of overconsumption and colonial resource extraction have produced disproportionate health burdens for marginalised groups and most affected people and areas, applying intersectionality and decolonial frameworks.	CR	1.19
		CR	1.23
		CR	4.4
		CR	7.6
		SSP	07.24
1.1.10.	Outline the role of international and national politics, governance mechanisms and health professionals in addressing Planetary Health challenges.	CR	1.21
		CR	1.22
		CR	1.23
		CR	1.24
		CR	4.8
1.2.	Attitudes		
1.2.1.	Articulate their own sense of ethical responsibility as a future health professional in the face of ecological crises, including any tensions or uncertainties this raises.	CR	1.19
		CR	1.21
		CR	1.25
		CR	4.3
		CR	7.6
1.2.2.	Discuss the tension between principles of equity, solidarity and intergenerational and interspecies justice and the constraints of their professional practice, articulating where they would prioritise and why.	CR	1.20
		CR	1.25
		CR	4.4
		CR	5.5
1.2.3.	Engage with non-biomedical knowledge systems (e.g. Indigenous or non-western) and reflect how they challenge assumptions about health and their professional role and articulate concrete implications for their professional practice.	CR	6.4
1.2.4.	Reflect how relational worldviews challenge assumptions in their training and reframe human health as inseparable and interdependent from the more-than-human world and articulate how this confrontation shifts their professional self-understanding.	CR	1.25
		CR	7.4
		CR	7.7

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1.2.5.	Practise perspective-taking by engaging with the documented or lived experience of marginalised or vulnerable groups affected by planetary crises and perceive how this shifts their professional approach.	CR	1.13
		CR	1.17
		CR	1.25
		CR	4.4
		CR	4.6
		CR	7.5
		EPA	7.4
		SSP	O7.24
1.3.	Skills		
1.3.1.	Communicate the health impacts of environmental crises effectively to patients, clients, colleagues, policymakers and the public, using audience-tailored strategies that consider health literacy, cultural context and values.	CR	2.2
		CR	2.9
		CR	5.5
		CR	7.4
		CR	7.7
		EPA	9.7
1.3.2.	Critically evaluate scientific evidence on Planetary Health for accuracy, interpret findings, identify and understand biases and their relation to policy.	CR	1.25
		CR	6.2
		CR	6.4
1.3.3.	Critically evaluate information for accuracy, identify and counter disinformation and apply evidence-informed public communication strategies on Planetary Health across traditional and digital media for diverse audiences.	CR	6.2
		CR	6.4
1.3.4.	Integrate systems thinking into professional problem-solving and decision-making.	CR	1.25
		CR	4.8
1.3.5.	Identify and manage environment-sensitive conditions and integrate environmental risks into clinical or professional decision-making.	CR	1.8
		CR	1.9
		CR	1.10
		CR	1.20
		CR	1.27

PH Code	PH Intended Learning Outcomes	PROFILES Chapter	PROFILES 2 Code
		CR	4.3
		CR	4.4
		CR	5.3
		EPA	1.8
		EPA	4.2
		EPA	7.9
		EPA	7.10
		EPA	9.7
		EPA	9.8
1.4.	Actions		
1.4.1.	Examine an assumption embedded in their prior education or professional training that may conflict with Planetary Health principles, articulate its source and commit to concrete changes in their professional practice as a result.	CR	1.25
		CR	6.1
		CR	7.7
1.4.2.	Analyse cases from their future professional context (real or simulated) and identify how planetary crises affect the health of a specific patient or community, including implications for their own professional role and responsibilities.	CR	3.1
		CR	4.1
		CR	4.3
		CR	7.7
1.4.3.	Process their emotional responses to ecological crises in a structured collective setting, articulate how these connect to their professional responsibility and identify actions they are prepared to take as a result.	CR	7.7
		CR	7.9
2	Sustainable and Resilient Healthcare		
2.1.	Knowledge		
2.1.1.	Describe the environmental footprint of healthcare systems in different contexts, identify its main emission sources and explain the main drivers of unsustainable health care practices and overtreatment.	CR	1.24
2.1.2.	Explain the principles of resilience, robustness, sufficiency and sustainable healthcare, including health promotion, prevention and low-carbon and low-intervention care and apply them to their professional context.	CR	1.8
		CR	1.24
		CR	2.8
		CR	4.1
		CR	4.2

PH Code	PH Intended Learning Outcomes	PROFILES Chapter	PROFILES 2 Code
		EPA	4.2
		EPA	7.9
		EPA	7.10
2.1.3.	Evaluate sustainable prevention, health promotion and healthcare practices for feasibility in their professional context, identifying institutional obstacles to implementation.	CR	1.10
		CR	1.24
		CR	4.2
		CR	5.2
		EPA	7.9
		EPA	7.10
		SSP	O4.2
		SSP	O7.3
2.1.4.	Explain the principles of emergency preparedness and disaster risk reduction in health systems and identify environment-related hazards for the functioning of health systems, including impacts on service delivery, infrastructure and supply chains.	CR	4.3
2.1.5.	Discuss the role of ethical and sustainable procurement, waste reduction, resource stewardship and supply chain responsibility in healthcare.	CR	7.6
		CR	1.27
2.1.6.	Describe Swiss and international organisations and initiatives contributing to Planetary Health and analyse whether and how they contribute to the socio-ecological transformation.	CR	1.24
		CR	1.27
		CR	4.8
2.1.7.	Outline challenges of social sustainability in the health workforce (e.g., burnout, equity, working conditions) and the implications on the overall health system's resilience.	CR	3.4
		CR	7.9
		SSP	O6.8
		SSP	O6.9
		SSP	O7.4
2.1.8.	Explain the salutogenic framework and contrast it with the pathogenic orientation of conventional health policy and healthcare, identifying its implications for sustainable and person-centred care.	CR	4.8
2.2.	Attitudes		

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2.2.1.	Work effectively with other professions across disciplines and sectors to address Planetary Health challenges and reflect on power dynamics, tensions, productive possibilities and their contribution to collaborative, respectful practice.	CR	3.1
		CR	3.2
		CR	3.3
		CR	7.8
2.2.2.	Confront the ethical complexity of providing care under environment-related disruptions and resource constraints and articulate how sustainable healthcare aligns with excellent care.	CR	7.6
		CR	1.20
		CR	1.24
2.2.3.	Sustain a commitment to protecting vulnerable populations disproportionately affected by climate-related events by identifying concrete ways their future professional decisions will reflect this commitment.	CR	1.9
		CR	1.17
		CR	4.4
		CR	4.5
		EPA	7.4
		EPA	7.14
		SSP	O7.24
2.2.4.	Examine their own understanding of high-quality care for gaps in sustainability and equity and articulate concrete changes to their reasoning and decision-making which could lead to better, more sustainable and equitable care.	CR	1.20
		CR	1.25
		EPA	7.10
2.2.5.	Examine their own procurement, prescribing and treatment assumptions for environmental and equity implications and articulate specific changes they are committed to make.	CR	1.10
		CR	1.25
		EPA	7.9
		EPA	7.10
2.3.	Skills		
2.3.1.	Apply principles of sustainable healthcare in clinical reasoning and practice, critically evaluate decisions for their environmental and social impacts and propose evidence-informed alternatives.	CR	1.9
		CR	1.24
		CR	1.27
		CR	6.2
		CR	6.3
		EPA	7.9

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		EPA	7.10
		SSP	O4.2
		SSP	O7.3
2.3.2.	Identify a procurement or supply chain practice within a known health institution and develop and present a concrete sustainability proposal, addressing structural barriers to change.	CR	1.27
		CR	2.2
		CR	4.2
2.3.3.	Apply basic principles of emergency preparedness in clinical or community settings, including recognizing and responding appropriately to environment-related health risks.	CR	1.24
		CR	4.1
		CR	4.3
		EPA	1.8
		SSP	O4.2
2.3.4.	Adapt clinical decision-making and care delivery in the context of resource constraints, disrupted infrastructure or increased patient demand during environment-related events.	CR	1.5
		CR	4.3
		CR	7.6
		EPA	7.10
		SSP	O4.2
		SSP	S9.11
2.3.5.	Communicate effectively with patients, clients, colleagues and communities before, during and after environment-related events, including risk communication and health protection advice (e.g. during heat waves, pandemics) under conditions of uncertainty, ambiguity and evolving evidence.	CR	1.13
		CR	1.23
		CR	1.24
		CR	1.25
		CR	2.2
		CR	2.8
		CR	3.2
		SSP	O4.2
		SSP	O4.3
		SSP	S9.11
2.3.6.	Act as agents of change by engaging with interprofessional, transdisciplinary and community-based initiatives and modelling	CR	4.8
		CR	5.3

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	sustainable and resilient practices within their professional network and institutions.	CR	5.5
2.3.7.	Formulate a research question relevant to a Planetary Health challenge in their professional field and apply principles of sustainable and equitable research practice in its design.	CR	1.20
		CR	6.2
		CR	6.5
2.4.	Actions		
2.4.1.	Identify a practice, process or policy within a prevention, health promotion or healthcare setting that contributes to environmental degradation or system vulnerability and propose a feasible alternative that improves sustainability or resilience while maintaining or improving quality of care.	CR	4.2
		CR	4.8
		EPA	7.9
		EPA	7.10
		EPA	9.2
		EPA	9.3
		EPA	9.8
2.4.2.	Identify a structural feature of the health system or institution they are trained within that inhibits sustainable practice or resilience and initiate or propose one specific meso-level action to challenge it, documenting what resistance or support they encounter.	CR	4.8
		CR	5.3
		EPA	9.8
2.4.3.	Analyse a climate-related disruption scenario and reflect on how their professional role would change under conditions of uncertainty, resource constraint or increased demand and derive consequences for current practice, preparedness and prevention.	CR	1.25
		CR	7.7
3	Co-Benefits, Health Promotion and Prevention		
3.1.	Knowledge		
3.1.1.	Explain the concept of health and environmental co-benefits and their impacts on population health outcomes (e.g. non-communicable diseases and disability-adjusted life years) and healthcare costs.	CR	1.23
		CR	1.24
3.1.2.	Recognise interventions with potential for health and environmental co-benefits and describe real-life successful examples, e.g. promoting plant-rich diets (e.g. Planetary Health Diet), active mobility and public transport, improving access to green spaces, fostering community engagement.	CR	1.9
		CR	2.9
		CR	5.2
		EPA	1.8
		SSP	O4.3

PH Code	PH Intended Learning Outcomes	PROFILES Chapter	PROFILES 2 Code
		SSP	O7.3
3.1.3.	Describe the principle of 'Health for All Policies,' explaining how it integrates health considerations across sectors and provide examples of policies that generate co-benefits for human, animal and ecosystem health.	CR	1.19
		CR	1.21
		CR	1.23
		CR	4.2
3.1.4.	Evaluate behaviour change strategies, appraise their limitations and critically examine the adequacy of individual behaviour-change approaches relative to structural determinants of health when addressing Planetary Health challenges.	CR	1.24
		CR	2.7
		CR	4.2
		EPA	1.8
		SSP	O4.3
		SSP	O7.3
3.2.	Attitudes		
3.2.1.	Situate opportunities for health and environmental co-benefits within their own professional context, articulate how they would actively leverage one and reflect on what structural constraints would need to change to make this possible.	CR	1.25
		CR	4.8
		CR	5.3
		EPA	7.10
3.2.2.	Examine their own assumptions about sufficiency and community participation and articulate where these align or conflict with sustainable health policy principles.	CR	1.24
		CR	1.25
3.2.3.	Engage with a democratic or participatory process (real or simulated) and reflect on what it reveals about power and inclusion in health decision-making.	CR	4.8
3.2.4.	Commit to promoting structural change beyond individual behaviour modification and articulate the reasoning behind this commitment.	CR	4.8
		CR	5.3
3.3.	Skills		
3.3.1.	Critically integrate co-benefit considerations (e.g., diet, mobility, nature) into professional practice and patient/client counselling.	CR	1.9
		CR	1.13
		CR	2.7
		CR	2.9
		CR	5.2

PH Code	PH Intended Learning Outcomes	PROFILES Chapter	PROFILES 2 Code
		EPA	1.8
		SSP	O4.3
		SSP	O7.3
3.3.2.	Develop a concrete advocacy message or policy brief applying a Health-for-All-Policies perspective to a Planetary Health-relevant issue at local or institutional level and justify the policy argument to a peer audience.	CR	2.2
		CR	5.5
3.3.3.	Engage in participatory processes and transdisciplinary collaboration to strengthen community-based and democratic healthcare models.	CR	5.3
3.3.4.	Apply principles of behaviour change strategies and patient-centred communication strategies that acknowledge emotions, values and concerns (e.g. fear, resistance, eco-anxiety) in their professional interactions.	CR	2.1
		CR	2.2
		CR	2.3
		EPA	7.7
		EPA	7.13
		SSP	O6.8
		SSP	O7.4
		SSP	S9.11
3.4.	Actions		
3.4.1.	Identify co-benefit interventions relevant to their professional context, develop an advocacy strategy for it and take one initial concrete step towards executing it, reflecting on the barriers encountered.	CR	1.23
		CR	4.2
		CR	5.1
3.4.2.	Engage in a patient, client or community dialogue (real or simulated) on a co-benefit intervention, reflect on the emotional, cultural and ethical dimensions encountered and articulate how it enables or constrains individual actions and health outcomes.	CR	1.24
		CR	2.2
		CR	7.4
3.4.3.	Reflect on the limits of individual behaviour change approaches, examine their own assumptions about individual responsibility and agency and articulate a position on the role of health professionals in promoting systemic change.	CR	1.25
		CR	5.1
		CR	7.2
		CR	7.4
4	Planetary Health Advocacy and Action		
4.1.	Knowledge		

PH Code	PH Intended Learning Outcomes	PROFILES Chapter	PROFILES 2 Code
4.1.1.	Explain the concept of socio-ecological transformation and its relevance for Planetary Health.	CR	4.8
4.1.2.	Define and differentiate interspecies, reproductive, intra- and intergenerational justice and discuss their implications for health equity.	CR	1.21
		CR	7.6
4.1.3.	Describe alternative economic frameworks and their implications for health systems and human, animal and ecosystem health.	CR	1.24
		CR	4.7
		CR	5.5
4.1.4.	Explain the concept of social tipping points and their potential for sustainable change.	CR	1.24
		CR	4.8
4.1.5.	Distinguish between ecological footprint and handprint and identify opportunities for health professionals to increase their handprint.	CR	4.8
4.1.6.	Explain the psychological dimensions of individual and collective reaction to ecological crises, including eco-anxiety, solastalgia and resilience-building and critically examine their interpretation as context-appropriate or pathological.	CR	1.24
		SSP	O5.5
		SSP	O6.8
		SSP	O7.4
		SSP	S9.11
4.1.7.	Identify examples of transformative action and advocacy initiatives in Switzerland.	CR	4.8
		CR	5.5
4.1.8.	Discuss the role of health professionals as advocates in socio-ecological transformation.	CR	3.1
		CR	4.8
4.2.	Attitudes		
4.2.1.	Practise empathic engagement with the lived experience of those disproportionately affected by the planetary crises and articulate how this shifts their sense of professional obligation.	CR	1.17
		CR	1.23
		CR	2.1
		CR	7.1
		CR	7.4
4.2.2.	Process their own emotional response to the ecological crises in a structured collective setting, articulate how this shapes their capacity for sustained advocacy and navigate eco-anxiety and moral distress by drawing on reflective practice and peer support.	CR	1.25
		CR	7.2
		CR	7.9

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4.2.3.	Engage with a transformative approach and reflect on what it offers and what tensions it creates for their professional identity.	CR	1.25
		CR	4.8
		CR	5.5
4.3.	Skills		
4.3.1.	Reflect on their ecological footprint, identify ways to enhance their handprint and examine the structural factors that constrain or enable individual change, articulating meso- or macro-level actions alongside individual actions.	CR	1.25
		CR	5.3
4.3.2.	Engage in individual and collective resilience-building practices.	CR	3.4
		CR	5.3
		CR	5.5
		CR	7.9
4.3.3.	Lead or organise a health-related advocacy initiative for socio-ecological transformation, and reflect on the structural obstacles, power dynamics and assumptions about professional agency the experience revealed.	CR	4.8
		CR	5.5
4.3.4.	Communicate effectively and respectfully about socio-ecological transformation and social tipping points, applying evidence-informed, disinformation-aware and audience-specific communication strategies.	CR	2.2
		CR	6.2
		CR	6.3
4.4.	Actions		
4.4.1.	After processing ecological grief or eco-anxiety in a structured collective setting, articulate concrete actions they are prepared to take as a health professional in response to what arose.	CR	3.2
		SSP	O6.8
		SSP	S9.11
4.4.2.	Analyse a current Swiss health or environmental policy using lenses of socio-ecological justice, commercial determinants of health or intergenerational equity, identifying where health professionals have influenced or failed to influence its development.	CR	1.19
		CR	1.20
		CR	1.22
		CR	5.3
		CR	5.5
		CR	6.7

PH Code	PH Intended Learning Outcomes	PROFILES Chapter	PROFILES 2 Code
4.4.3.	Take and defend a position as a health professional within a contested Planetary Health policy debate, articulate the values and assumptions shaping their stance and identify where these may conflict with health equity commitments.	CR	1.19
		CR	1.20
		CR	5.1
4.4.4.	Design, organise and carry out a structural advocacy action on a Planetary Health issue, reflect on the power dynamics, resistance and assumptions about professional agency it revealed.	CR	2.2
		CR	5.3
		CR	5.5
4.4.5.	Sustain involvement in a collective resilience-building practice or community action over time, documenting how this shapes their long-term-capacity and motivation to contribute to the socio-ecological transformation.	CR	5.3
		CR	6.1