

Underpinning skills and knowledge

The underpinning skills and knowledge required by all environmental health graduates are listed in table 1. These skills and knowledge form the accreditation criteria for environmental health courses and universities must demonstrate how each criterion is being met before their course will be accredited.

Table 1: Underpinning skills and knowledge

Reference	Accreditation requirement
Communication	
C1	Knowledge of written and verbal communication techniques and strategies suitable for diverse audiences, purposes and contexts.
C2	Knowledge of strategies to build collaboration, work in teams, mediate, educate, advocate, and influence outcomes and deal with difficult situations.
C3	Basic principles of reflective practice and self-development for effective communication.
Environmental health risk assessment and management	
E1	Understanding of the core principles, frameworks for and procedures involved in risk assessment for environmental health contexts.
E2	Critical evaluation of evidence underpinning environmental health risk assessment.
E3	Introduction to risk management principles and evaluation of risk management options.
Law, governance and policy	
L1	Introduction to legislative frameworks for environmental health.
L2	Introduction to the law making process and factors that influence policy and legislation.
L3	Knowledge of how to interpret legislation.
L4	Knowledge of public and environmental health legislation.
L5	Introduction to development assessment processes.
L6	Introduction to administrative law (e.g. public sector record keeping requirements, privacy laws, freedom of information/right to information, disclosure, mandatory reporting).
L7	Introduction to grounds for internal and external reviews, appeals, etc.
L8	Overview to workplace laws (e.g. anti-discrimination, anti-harassment, work health and safety).
L9	Knowledge of legal authority and requirements to act in accordance with the purpose of legislation and ethical standards for authorised persons/officers (e.g. duty of care, confidentiality, powers of entry).
L10	Knowledge of compliance options (legislative and non-legislative) including their strengths, limitations and legislative requirements.
L11	Introduction to interviewing, investigation and risk-based inspection techniques, prosecution processes, court procedures, etc.
L12	Introduction to enforcement guidelines/policies/protocols.

Reference	Accreditation requirement
L13	Introduction to governance principles and strategies, ethics and decision making.
L14	Overview of the jurisdiction and role of agencies relevant to environmental health in all tiers of government.
L15	Introduction to key government strategies and intergovernmental agreements in the context of environmental health.
L16	Introduction to policy and program development and evaluation techniques.
L17	Knowledge of criteria and general procedures for assessing, approving, determining conditions and licences, notices, orders and fines.
Management and administration	
M1	Introduction to decision support tools (e.g. risk analysis, cost-benefit analysis, etc.).
M2	Introduction to project planning and management.
M3	Introduction to strategic and operational planning. (Merged with M2)
M4	Introduction to key government protocols in the context of environmental health.
Public health and sustainability principles	
P1	Understanding of determinants of health and socio-ecological models of health.
P2	Introduction to population/public health and health promotion principles, theories, strategies, frameworks and tools.
P3	Introduction to linkages between environment and health. (Merged with P4)
P4	Introduction to linkages between environment and health policies and programs.
P5	Understanding the construct and principles of sustainability.
P6	Introduction to environmental and health impact assessment.
P7	Introduction to and the understanding of environmental health objectives, values, principles and risks and how they are embedded in relevant legislation.
P8	Introduction to how environmental health principles are applied in policy development and decision making.
P9	Introduction to the impact of development on environmental health.
Research and critical thinking skills	
R1	Introduction to qualitative and quantitative research methods covering research design principles and strategies, research ethics, methods of data collection and analysis to support evidence-based decision-making in environmental and public health.
R2	Introduction to epidemiology and biostatistics to facilitate the critical evaluation of public health evidence.
R3	Basic principles and techniques of sampling for environmental health purposes (e.g. environmental sampling, food sampling), including quality assurance.
R4	Introduction to procedures for investigating environmental health incidents including disease outbreak investigations and pollution events.
R5	Problem solving using systems thinking and critical judgement.
Science	
S1	Introduction to principles of physics as a basis for understanding physical hazards and noise.
S2	Basic principles of biology.

Reference	Accreditation requirement
S3	Introduction to human anatomy and physiology as a basis for understanding disease causation and exposure pathways.
S4	Basic principles of microbiology.
S5	Knowledge of microorganisms of significance for human health.
S6	Basic principles of chemistry.
S7	Basic principles of ecology.
S8	Basic principles of environmental science.
S9	Introduction to atmospheric sciences as a basis for understanding environmental change, pollutant and vector dispersal.
S10	Introduction to toxicology as a basis for environmental health risk assessment.
S11	Introduction to pest management and entomology as a basis for understanding vectors of disease.
S12	Introduction to treatment and monitoring technologies e.g. wastewater treatment, air pollution control, etc.
S13	Introduction to hazardous materials used in construction (e.g. asbestos).
S14	Introduction interpreting building and engineering plans (e.g. building permits, development approvals).

Applied areas

Part 3 of the enHealth ‘Environmental Health Officer Skills and Knowledge Matrix’ describes the following nine applied work-related areas of skills and knowledge:

- safe and suitable food;
- prevention and control of notifiable and communicable conditions;
- water management;
- environmental management;
- land use management;
- built environment;
- Indigenous environmental health;
- sustainability and climate change; and
- emergency management.

Universities must demonstrate how they are preparing their graduates to apply the underpinning skills and knowledge in the applied areas.