Summary of One Health Undergraduate Competencies

Holistic Understanding of Health

A holistic view of health examines human, animal, and environment systems, incorporating social, economic and environmental determinants and acknowledging the interconnections that exist, both on a local and global scales.

- Formulate a holistic definition of health in the context of their work
- Analyze the interconnections between animal, human, and environmental health
- Assess health in different settings, and work in different levels of health from local to global
- Integrate different cultures and beliefs into how they approach One Health problems.
- Promote mechanisms to build and maintain healthy populations and ecosystems that are able to cope with change
- Integrate evolutionary perspectives (process, history) in understanding systems related to One Health

Systems Thinking

Systems thinking is a tool used to examine an entire system to identify a problem, recognize its complexity and devise a solution. This is a comprehensive approach that considers how the dynamic interactions and interdependencies among components of a system affect the overall functioning of the system.

- Explore and identify systems thinking approaches to health issues by identifying the components, their functions, and the interconnections (positive, negative, synergistic, antagonistic) between them
- Identify key areas of vulnerability in systems related to OH and develop strategies to reduce it
- Evaluate system resilience and sustainability
- Apply interdisciplinary and intersectoral approaches to generate, validate, disseminate, and use diverse types of knowledge

Problem Solving and Critical Thinking

Problem solving and critical thinking strategies help to identify complex problems and devise potential solutions that are innovative, creative, and divergent. Integration of knowledge, application, and mobilization of this knowledge across disciplines is required to develop effective solutions to challenging problems.

- Analyze problems in a holistic and creative manner, incorporating various perspectives including current research, disciplinary and diverse knowledge systems
- Identify and evaluate potential solutions or draw conclusions that acknowledge the interconnections of human, animal and environmental health
- Propose solutions using innovative, creative and divergent approaches, acquired through interdisciplinary experiences and knowledge
- Identify problems in OH and explore solutions using evidence-based approaches

**Professional and Ethical Behaviour**

Professional and ethical One Health practitioners are able to demonstrate integrity, honesty, trust, fairness, adaptability, inclusivity and respect in diverse contexts. One Health practitioners will be able to link the ideas of many people involved with different roles, responsibilities, and priorities to initiate a shared vision and motivate teams across disciplines are key characteristics of leadership and collaboration in One Health.

- Create opportunities for open communication and active listening and open to feedback
- Demonstrate ethical decision-making when evaluating proposed One Health actions
- Demonstrate strong time management and organizational skills.
- Foster relationships context and cultural
- Identify relevant perspectives involved in each system and assemble teams that bring together the necessary perspectives and expertise.
- Foster, encourage and leverage the strengths of the team and promote efficiency.
- Respectfully consider the other points of view

**Communication**

Communication is essential in any interdisciplinary activity where insights and decisions are made as a result of interactions between disciplinary experts and stakeholders affected by the problem at hand.

- Accurately and effectively communicate ideas, arguments and analyses, to a range of audiences, in graphic, oral and written form
- Establish and facilitate interactions among partners and stakeholders associated with One Health problems
- Apply strong networking and interpersonal skills in professional settings.
- Explain complex One Health problems using several modes of communication and knowledge dissemination tools

**Information Management and Data Analysis**

The ability to collect, manage, and organize data to produce information and knowledge is key to successful One Health practice. This includes gathering, processing, and presenting information to different audiences in-person, through information technologies, or through media channels; and to strategically design the information & knowledge exchange process to achieve specific objectives.

- Access, synthesize and analyze data and literature from a variety of sources to make informed, evidence-based decisions, including policy assessment and recommendations.
- Apply qualitative and quantitative methods and data to understand One Health problems and identify evidence-based approaches and solutions.
Breadth and Depth of Understanding

An understanding of the function, dynamics and health of animal, human, and the environment systems and how they are linked is the foundation of One Health.

- Demonstrate a breadth and depth of knowledge in animal, human and environmental systems and their relations
- Recognize how tools and methods from diverse disciplines contribute to a One Health perspective
- Develop methods, skills and techniques to conduct independent inquiry within One Health
- Discipline perspective view and broad perspective, working or thinking at multiple scales