

## Definitions of Systems

A **system** is a group of organs or functional collections of tissue that work together to maintain homeostasis. A system does not work in isolation, and the person's well-being depends upon the well-being of all the interacting systems.

The foundational systems definitions were developed by the Curriculum Management Unit in consultation with:

- Curriculum Renewal Project Development Committee
- All regional Curriculum Transition Teams
- System Integration Lead and the System Leads

The definitions were endorsed by the Curriculum Renewal Project Steering Committee.

Foundational System	Definitions
Behavioural System	The mental processes such as cognition, emotion, temperament, motivation; and bio-behavioral interactions.
Blood and Lymphatics System	The system composed of organs and tissues that form blood and transport immune cells, red blood cells, and lymph.
Cardiovascular System	The system composed of the heart and the blood vessels.
Digestive System	The system composed of the organs stretching from the mouth to the anus, serving to break down foods, assimilate nutrients, and eliminate waste. *Note: includes nutrition, liver, and exocrine pancreas*
Endocrine System	The system of glands that release hormones directly into the circulatory system.

<b>Growth and Development System</b>	The continuous sequential physical, physiological and psychological maturation of an individual.
<b>Immune System</b>	The system composed of the body's defense mechanism against foreign organisms or substances. *Note: includes infectious disease and medical microbiology (IDMM)*
<b>Integument System</b>	The system composed of the skin and the skin appendages.
<b>Musculoskeletal System</b>	The system composed of the muscles, bones, and cartilage of the body.
<b>Nervous System</b>	The system composed of the brain, spinal cord, cranial and spinal nerves, autonomic ganglia, and plexuses.
<b>Reproductive System</b>	The system composed of the organs involved in reproduction. *Note: includes mammary glands*
<b>Respiratory System</b>	The system composed of the tubular and cavernous organs and structures for pulmonary ventilation and gas exchange.
<b>Urinary System</b>	The system composed of the organs involved in the formation, release, and excretion of urine.

## Definitions of Themes and Areas of Content Expertise

Together with Systems and Clinical Experiences, Themes support integrating content into the curriculum from Years 1 to 4 and ensure the content is introduced deliberately and at the appropriate stage of training.

**Themes and Areas of Content Expertise** cover areas of medical education that require a focus and a developmental approach to an understanding over all four years. Themes and Areas of Content Expertise can be medical science topics (i.e. pathology), approaches to patient care (i.e. advocacy, counselling), or focused on specific patient populations that have been identified as requiring particular attention at this time (i.e. geriatrics).

**Redefined Themes:** During Curricular Review in 2021, the Undergraduate Medical Education Committee (UGMEC) approved the recommendation for continuous quality improvement of the curriculum. As part of the approach, the UGMEC will determine the areas of content expertise that should receive particular attention over a 3-year period and so as to support specific changes that may be required to align the curriculum with the UBC MDUP Mission Statement, the revised Social Accountability Framework, and the revised Exit Competencies. To support this work, Theme Leads will be appointed to oversee such curricular adaptations.

### Clarification of Roles and Responsibilities

**Theme Leads:** Theme Leads are responsible for reviewing, designing, and implementing curricular improvement related to specific Themes across all four years in consultation with Course Directors and Week Leads, so as to ensure content relevant to the Theme is integrated appropriately.

**Content Leads:** Content Leads are key educators for the MD program. They will continue to engage in leading curricular improvement of the respective areas of content expertise, as prioritized by UGMEC.

Themes	Description
<b>Clinical Decision Making</b>	This theme includes clinical reasoning, critical thinking, critical appraisal of evidence, shared decision-making, and application of the best available information in alignment with the patient's experiential knowledge, values, beliefs, expressed needs, and preferences.
<b>Student Professionalism, Equity, Diversity and Inclusion</b>	This theme focuses on advancing professionalism, equity, diversity, and inclusion throughout the curriculum, in alignment with MDUP Exit Competencies. This includes an understanding of the social determinants of health and their historical roots; power and privilege, and who benefits from the status quo; the multiple facets that contribute to patient identity; how oppression, racism, sexism and other 'isms' intersect to impact health; and how (and with whom) to challenge health inequities, at individual, organizational, community and societal levels.
<b>Indigenous Health</b>	This theme focuses on advancing Indigenous people's health through education to improve wellness, health care and patient outcomes and promote self-determination of Indigenous peoples. This includes an understanding of Canada's history of colonialization and its generational impact on health outcomes and the on the social and structural determinants of health and wellness including racism, housing, employment, income, environment, language, land, culture, and education. Future physicians will require communication and advocacy skills that are culturally safe, strength-based, and resilience-informed and that recognize structural violence in the health system.
<b>Lifestyle Medicine</b>	Lifestyle medicine uses therapeutic lifestyle interventions as a primary modality to treat chronic conditions including, but not limited to, cardiovascular diseases, type 2 diabetes, and obesity. The goals are to apply evidence-based, whole-person, prescriptive lifestyle changes to prevent, treat and, when used intensively, often reverse such conditions.
<b>Rural and Remote Medicine</b>	This theme prepares medical students to appreciate the challenges of accessing health care services in rural and remote areas, learn from rural clinicians in varied resource environments with a wide scope of skills and knowledge. This includes developing connection to the rural communities, appreciation of the enhanced health and wellness opportunities that present themselves in the rural setting. Understanding the varied healthcare contexts of BC is critical in reducing health inequities.
<b>Planetary Health and Global Health</b>	<p>Global Health: Where health is understood to be an outcome of globally shared risks and responsibilities that require collective action to achieve good health for all.</p> <p>Planetary Health is the achievement of the highest attainable standard of health, wellbeing, and equity worldwide through judicious attention to the human systems—political, economic, and social—that shape the future of humanity and the Earth's natural systems that define the safe environmental limits within which humanity can flourish.</p>

<b>Team-based Care, Leadership and Quality Improvement</b>	This theme focuses on enhancing interprofessional education to improve healthcare quality, and support patient safety as well as patients' and caregivers' experiences.
<b>Elder Care</b> (Special Population – Geriatrics)	The theme focuses on enhancing the education on the unique care needs of the aging population from a holistic and generalist perspective.
<b>Addictions and Substance Use</b>	This theme focuses on supporting learners in developing skills to promote recovery, safety, wellness, and harm reduction strategies with the goal to improve patient care and support for those with substance use disorders.
<b>Well-Being</b>	This theme focuses on supporting learners in cultivating and nurturing all dimensions of self, including cultural, emotional, mental, physical, social, professional and spiritual, to achieve an authentic and high quality of life.

Area of Content Expertise	Definition
<b>Anatomy and Embryology</b>	The study of the origin, growth, and development of a human embryo and the relationship between the structure and function of organs and tissues.
<b>Biochemistry and Molecular Biology</b>	The study of the molecular basis of biological activities, and their effect on the normal and abnormal biological processes.
<b>Complementary and Alternative Therapies</b>	<p>The use of therapeutic practices which are not currently considered an integral part of conventional allopathic medical practice.</p> <p>Note: Complementary when used in addition to conventional treatment and Alternative when used instead of conventional treatment.</p>
<b>Diagnostic Imaging</b>	The use of a variety of imaging modalities to display the structural or functional patterns of organs or tissues of the human body for diagnostic and therapeutic purposes.
<b>Evidence Based Medicine and Scholarship</b>	The provision of care and practice demonstrating a reflective lifelong commitment to excellence through continuous learning, teaching others, generating scholarship, and evaluating and integrating the best evidence to guide clinical care.
<b>Genetics and Genomics</b>	This area of content expertise focuses on the integration of genetics and genomics in foundational sciences and clinical education.
<b>Health Advocacy and Social Determinants of Health</b>	The activities taken to collaboratively work with individual patients, communities and populations to advance their health and well-being with the understanding that health is largely shaped by living conditions (social determinants of health), and less by medical care or individual lifestyle choices. The actions taken by a physician on behalf of the individual patients and the advocacy to improve the functioning of the health care system.

<b>Histology</b>	The study of the microscopic anatomy of humans and the relationship between the normal structure and function of cells, tissues, and organs.
<b>Laboratory Diagnosis</b>	The use of diagnostic tests in clinical chemistry, pathology, hematology, microbiology, and other general clinical laboratory applications for the diagnosis and treatment of disease.
<b>Medical Ethics</b>	The provision of care that is informed and supported by the application of the principles of law and justice. Includes the principles of proper conduct concerning the rights and duties of the professional, the relations with patients, patient's families, consumers and fellow practitioners.
<b>Pathology and Neoplasia</b>	The study of the nature and cause(s) of diseases as demonstrated by changes in the structure and function in cells, tissues, and organs, including neoplasia.
<b>Pharmacotherapy</b>	The application of the origin, nature, properties, mechanisms of action and effects (positive and deleterious) of specific drugs, with consideration of the appropriate dosing, route, regimen, drug interactions and variability in patient response, as well as evidence for use and the availability of resources in the treatment of disease.
<b>Physiology</b>	The study of the chemical factors, processes and functions of the human body and its parts. Note: For altered states use pathology.
<b>Primary Care</b> (Family Medicine)	This area of content expertise emphasizes the foundational knowledge and clinical skills required to provide first-contact care for undifferentiated and complex health concerns, promote preventive care and support a healthy lifestyle.

<b>Rehabilitation</b>	The use of a range of means in an interdisciplinary fashion, to restore human function to the maximum degree possible in the treatment of injury or disease.
<b>Special Populations - Palliative Care</b>	The approach to patients and populations who have chronic progressive illnesses with a focus on care and comfort as opposed to curing the underlying disease.
<b>Virtual Care and Informatics</b>	The provision of care that is informed and supported by information science that includes the analysis and dissemination of patient and treatment data through the application of computers and other electronic resources.
<b>Visual Science</b>	The study of the eyes and associated visual pathways. This theme is closely integrated with multiple systems, in particular the nervous system.