01 Intro, Cavities, Skin, Homeostasis

Monday, 14 July 2025 8:53 am

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Intro/Admin

- Weekly quizzes
- Assignment 1 due week prior to last week of term: Topic of choice, explained to public in way that is accessible to general public; goal is explaining something complex simply
- Assignment 2 in Sem 2 due week prior to last week of term: written assignment ~500 words; critical thinking regarding wellness industry media
- Midcourse test 8th Sep term 3 content
- Weds are PBL days, not mandatory
- Tutorials start W3, four of them, similar to PBLs
- Textbook not mandatory, all info required supplied through lectures
- The tutorials are held in labs but are not labs and do not need lab equip

Summary:

- *Tissues* are groups of cells with common functions
- Organs and organ systems each perform one or more essential complex functions for the organism
- *Organ systems* are groups of organs that perform a common function
- Tissue membranes line body cavities, that is, serous, mucous, synovial, and cutaneous

- The skin is an organ system
- Skin functions: prevent dehydration, protect from injury, defend against microorganisms, regulate body temperature, make vitamin D, and experience sensations
- Skin structure: epidermis and dermis
    - Epidermal cells are replaced constantly
    - Fibers in dermis provide strength and elasticity
    - Accessory structures include hair and smooth muscle

- Multicellular organisms must maintain homeostasis
- Homeostasis is maintained by negative feedback control systems
- Negative feedback system components include the controlled variable, sensor/s, control centre (hypothalamus), and effector/s
- Negative feedback helps to maintain core body temperature

Learning objectives:

- Define the term tissue
- Understand the types and roles of body cavities
- Name the four different types of tissue membranes and discuss the function of each
- List and give a function for the major structures of the integument
- Analyse how negative feedback maintains homeostasis in the human body