The Integumentary System

Exercise 7 (begins: page 91 in 9th & 10th editions, page 93 in 11th & 12th editions)
Lab 5 Objectives

Read lab Exercise 7
Do Activities 1, 2, 3, 4 and 6 (examine your fingerprint, determine pattern) in 9th 10th 11th & 12th eds

Activities 1 and 2
Identify basic structures and accessory of the skin on models and diagrams:

Epidermis
- Keratinocytes
- Melanocytes
- Langerhans cells / Epidermal Dendritic cells
- Merkel cells / Tactile cells / Tactile discs
- Stratum basale
- Stratum spinosum
- Stratum granulosum
- Stratum lucidum
- Stratum corneum
- Epidermal ridges

Dermis
- Papillary layer
  - Dermal papillae
- Meissner’s corpuscles / Tactile corpuscles
- Reticular layer
  - Pacinian / Lamellated / Lamellar corpuscles

Nails
- Body
- Free edge
- Root
- Nail folds
- Eponychium
- Nail bed
- Nail matrix
- Lunula

Hair
- Hair follicle
- Shaft
  - Cuticle
  - Cortex
  - Medulla
- Root
  - Glassy membrane
  - External epithelial root sheath
  - Internal epithelial root sheath
Hair bulb
  Hair papilla
  Hair matrix
Arrector pili muscle
Cutaneous glands
  Sebaceous glands
  Eccrine Sudoriferous (sweat) glands

Activities 3 and 4
  Identify histology on slides:
  1. Hairy skin (scalp) / Thin skin (Activity 3 and 4)
     Hair follicle
     Hair shaft
     Hair root
     Glassy membrane
     External epithelial root sheath
     Internal epithelial root sheath
     Hair bulb
     Hair matrix
     Hair papilla
     Epidermis
     Stratum basale
     Stratum spinosum
     Stratum granulosum
     Stratum corneum
     Epidermal ridges
     Dermis
     Dermal papillae
     Sebaceous glands
     Eccrine Sudoriferous (sweat) glands

  2. Thick skin (sole of foot) (Activity 3)
     Epidermis
     Stratum basale
     Stratum spinosum
     Stratum granulosum
     Stratum lucidum
     Stratum corneum
     Epidermal ridges
     Dermis
     Dermal papillae
Activity 6
Identify dermography patterns:
- Plain arch
- Tented arch
- Loop
- Plain whorl
- Double loop whorl

Determine your pattern:

For Study: Review Sheet Exercise 7
- pages 101-104 in 9th and 10th editions
- pages 103-106 in 11th and 12th editions
Answers in the Instructors Manual at the Eastern Campus Library on reserve