

Bio 406 – Vertebrate Histology
Class and Laboratory Assignments

Week #1

Telford and Bridgeman

Ch.1 The Cell: Cytoplasm pp. 1 – 28

Ch.2 The Nucleus pp. 29 – 38

Gartner and Hiatt

Ch. 1 The Cell pp. 1 - 23

New Slides:

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| (1) SALAMANDER LIVER
(H&E, Azure B, Feulgen) | (4) GOLGI APPARATUS
(Silver) | (7) “NISSL” BODIES
(Thionin) |
| (2) MESOTHELIUM
(Silver) | (5) GLYCOGEN
(Best’s Carmine) | (8) MITOSIS
(Haemotoxylin) |
| (3) MITOCHONDRIA
(NitroBlue Tetrazolium) | (6) PHAGOCYTOSIS
(Trypan Blue) | |
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Week #2

Telford and Bridgeman

Ch 3 Primary Tissues pp. 41 - 51

Ch 4 Epithelium pp 53 – 68

Ch.5 Epithelial Specializations pp 69 - 77

Gartner and Hiatt

_Ch. 2 Epithelia and Glands pp 24 - 41

Review Slides # 1 - 8

New Slides:

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| (9) INTRACELLULAR BRIDGES
(Silver) | (11) STRATIFIED SQUAMOUS EPITHELIUM
(H& E) | (13) COLUMNAR EPITHELIUM
(H & E) |
| (10) SIMPLE SQUAMOUS EPITHELIUM
(Various Stains) | (12) CUBOIDAL EPITHELIUM
(H& E) | (14) TRANSITIONAL EPITHELIUM
(H & E) |
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Week #3

Telford and Bridgeman

Ch. 6 Connective Tissue 1: Cells and Fibers pp 79 –98

Gartner and Hiatt

Ch.3 Connective Tissue pp. 42 - 59

Review Slides # 1 - 14

New Slides:

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| (15) LOOSE IRREGULAR CONNECTIVE TISSUE
(H& E) | (17) DENSE REGULAR CONNECTIVE TISSUE
(H& E) | (20) ADIPOSE TISSUE
(H & E) |
| (16) DENSE IRREGULAR CONNECTIVE TISSUE
(Various Stains) | (18) RETICULAR CONNECTIVE TISSUE
(H& E) | (21) MESENCHYME (EMBRYONIC CT)
(H & E) |
| | (19) ELASTIC CONNECTIVE TISSUE
(Orcein) | |

Week #4**Telford and Bridgeman***Ch 7 Connective Tissue II. Cartilage
Bone and Joints pp. 99 - 120***Gartner and Hiatt***Ch. 4. Cartilage and Bone pp 60 - 82***Review Slides # 1 - 21****New Slides:****(22) HYALINE CARTILAGE**
(H& E)**(25) DEVELOPING BONE**
(INTRAMEMBRAEOUS)
(Masson's Trichrome)**(27) COMPACT BONE**
(CS & LS)
(Ground)**(23) ELASTIC CARTILAGE**
(Orcein)**(26) DEVELOPING BONE**
(ENDOCHONDRAL)
(various)**(28) COMPACT BONE**
(CS & LS)
(H & E)**(24) FIBROCARTILAGE**
(H & E)**Week #5****Telford and Bridgeman***Ch. 10 Muscle Tissue pp. 151-165
Ch. 11. Nervous System pp. 167 - 195***Gartner and Hiatt***Ch 6. Muscle pp 100 - 121***Review Slides # 1 - 28****New Slides:****(29) MUSCLE TYPES**
COMPOSITE
(various)**(31) MULTIPOLAR NEURONS**
(SPINAL CORD SMEAR)
(Thionin and Eosin)**(34) PACINIAN CORPUSCLES**
MEISNER'S CORPUSCLES
(H & E)**(30) CARDIAC MUSCLE**
and PURKINJE FIBERS**(32) SPINAL CORD AND**
GANGLIA
(H & E)**(35) NEUROMUSCULAR JUNCTIONS**
(Silver)**(33) MEDULATED NERVE**
CS and LS
(Osmium, H & E)**Week #6****Telford and Bridgeman***Ch. 8. Connective Tissue III. Blood
Ch. 9. Hemopoiesis pp. 139-150
Ch. 13. Circulatory System pp. 217-232
Ch. 14 Lymphatics pp. 235-253***Gartner and Hiatt***Ch. 5 Blood pp 83-99
Ch 8. Circulatory System pp 144-161
Ch. 9 Lymphatic System pp. 162-184***Review Slides # 1 - 35****New Slides:****(36) BLOOD SMEAR**
(Wright's and Giemsa)**(39) ARTERY and VEIN**
(H & E, Orcein)**(42) SPLEEN**
(H & E)**(37) BONE MARROW**
SECTION
(H & E)**(40) LYMPH NODE**
(H & E)**(43) PALATINE TONSIL**
(H & E)**(38) BV ENDOTHELIUM**
and CAPILLARIES
(Silver)**(41) LYMPH VESSELS**
with VALVES
(Osmium, H & E)**(44) FETAL THYMUS**
(H & E)

Week #7

Telford and Bridgeman
Ch. 15 Integument pp. 255-271

Gartner and Hiatt
Ch 11. Integument pp. 206-222

Review Slides # 1 - 44**New Slides:**

(45) **THIN HUMAN SKIN**
 (Comparative Pigmentation)
 (H & E)

(47) **HUMAN SKIN: SCALP**
 (H & E)

(49) **HUMAN SKIN:**
AXILLA and NIPPLE
 (H & E)

(46) **THICK HUMAN SKIN**
 (Unpigmented)
 (H & E)

(48) **HUMAN SKIN: LIP**
and EYELID
 (H & E)

(50) **HUMAN SKIN: NAIL**
DEVELOPMENT
 (Mallory's)

Week #8

Telford and Bridgeman
Ch. 17. Digestive System I: Oral Cavity
And Pharynx pp. 291 - 308
Ch. 18. Digestive System II: Alimentary
Canal pp. 309 - 321

Gartner and Hiatt
Ch. 13 Digestive System I pp 245-255
Ch. 14 Digestive System II pp 256-265

Review Slides # 1 - 50**New Slides:**

(51) **TOOTH – ADULT (LS)**
 (Decalcified, H & E)

(54) **SUBMAXILLARY GLAND**
 (H & E)

(57) **ESOPHAGUS**
 (H & E)

(52) **TASTE BUBS**
 (Rabbit Tongue)
 (various)

(55) **SUBLINGUAL GLAND**
 (H & E)

(58) **ESOPH -STOMACH JUNCTION**
 (H & E)

(53) **TONGUE (Various regions)**
 (H & E)

(56) **PAROTID GLAND**
 (H & E)

(59) **STOMACH (Fundus)**
 (H & E)

Week #9

Telford and Bridgeman
Ch. 18 Digestive System II pp. 322 - 331
Ch. 19 Digestive System III: Glands
pp. 333-354

Gartner and Hiatt
Ch 14. Digestive System II pp. 266-278
Ch. 15. Digestive System III pp. 279-297

Review Slides # 1 - 59**New Slides:**

(60) **DUODENUM**
 (H & E)

(64) **APPENDIX**
 (H & E)

(68) **LIVER w/PORTAL**
INJECTED

(61) **JEJUNUM**
 (H & E)

(65) **COLON**
 (H & E)

(69) **LIVER (Human)**
 (H & E)

(62) **ILEUM**
 (H & E)

(66) **RECTUM-ANUS JUNCTION**
 (H & E)

(70) **GALL BLADDER**
 (H & E)

(63) **SMALL INTESTINE**
 (H & E)

(67) **PIG LIVER**

(71) **PANCREAS**
 (H & E)

Week #10**Telford and Bridgeman***Ch. 16 Respiratory System pp. 273-290**Ch. 20. Urinary System pp. 335-382***Gartner and Hiatt***Ch 12. Respiratory System pp. 222-240**Ch. 16. Urinary System pp. 298-315***Review Slides # 1 - 71****New Slides:**

(72) **NASAL EPITHELIUM**
(H & E)

(75) **TRACHEA (LS)**
(H & E)

(79) **URINARY BLADDER**
(Iron Haemotoxin)

(73) **LARYNX (Frontal Section)**
(H & E)

(76) **LUNG and BRONCHIOLI**
(H & E)

(80) **URETHRA (Female)**
(H & E)

(74) **TRACHEA (CS)**
(H & E)

(77) **KIDNEY**
(H & E)

(81) **URETER**
(H & E)

(78) **URETHRA and PROSTATE**
(H & E)

Week #11 Telford and Bridgeman*Ch. 23 Male Reproduct. System pp. 419-437**Ch. 24 Female Reproduct. System (Ovary) pp. 439-453**Ch. 25 Female Reproduct. System (Tract) pp455-472***Gartner and Hiatt***Ch. 17 Female Reproductive System
pp. 266-278**Ch. 18 Male Reproductive System.
pp 342-360***Review Slides # 1 - 81****New Slides:**

(82) **OVARY MATURE FOLLICLES**
(CAT, H & E)

(86) **UTERUS (Menstrual / Pregnant)**
(H & E)

(90) **TESTIS (Cat)**

(83) **OVARY CORPUS LEUTUM**
(H & E)

(87) **VAGINA (LS; Human)**
(H & E)

(91) **EPIDIDYMIS (Human)**
(H & E)

(84) **OVIDUCT (Ampulla and Isthmus)**
(H & E)

(88) **VAGINA and URETHRA (CS)**
(Human) (H & E)

(92) **PENIS (Mammal)**
(H&E)

(85) **UTERUS (Secretory Phase)**
(H & E)

(89) **SPERMATIC CORD / VAS DEFERENS**
(Human , H & E)

Week #12**Telford and Bridgeman***Ch. 21 & 22 Endocrines I & II pp. 382-407**Ch. 12, CNS pp 199-206**Ch. 26. Ear and Eye pp. 473-501***Gartner and Hiatt***Ch 10 Endocrine System pp. 185-205**Ch. 7 Nervous Tissue pp. 122-143**Ch. 19 Special Senses pp. 360-380***Review Slides # 1 - 92****New Slides:**

(93) **PITUITARY = HYPOPHYSIS**
(H & E)

(96) **SPINAL CORD**
(various)

(99) **EYE including
RETINA & CORNEA**
(H & E)

(94) **THYROID + PARATHYROID**
(H & E)

(97) **CEREBRUM and
CEREBELLUM**
(H & E)

(100) **OLFACTORY
EPITHELIUM**
(H & E)

(95) **ADRENAL**
(H & E)

(98) **EAR, including CHOCLEA
and CRISTA (H & E)**

