Cards & Staff Introduction

Last Name, First, Pronouns, Nickname, Phone, e-mail

Major, Undeclared or Area of Interest?

Academic Status: Fr, So, Jr, Sr, PB, MS, CEP

Professional Objective

Hometown, Birthplace

Why enrolled? Required? Interest?...

Prior related coursework? A&P in high school, EMT,...

Prior Universities/Community Colleges?

Family/Special interests/Hobbies

Something unique about yourself/Secret we won't reveal!

Thanks for printing your name & lab time on Lab notebook.
BI 121 Lab 1, Histology = Microscopic Study of Tissues

I. Lab Roster Cards & Staff Introduction

II. Requirements Attendance, Participation, Worksheets

III. Histology for Beginners In Memory of Harry Howard

IV. Microscope Familiarity
   A. Objectives/nosepieces – power up!
   B. Focus – coarse and fine
   C. Movement – mechanical stage
   D. How do I put a slide on the stage?
   E. Adjusting for eye width 😊...My what fun it is to see – hooray, hooray, his-tol-o-gy!!

V. View & Have Fun! See also photos @ front & scopes in back. Please ask questions & come see us!
1. Put the e & i slide **upright** on the microscope tray so you can **read** it & see how looking through the scope changes what you see.

2. Use the remaining time **simply to explore** nerve, muscle, epithelial & connective tissues – really anything you want – just be sure to **keep the slides in the tray in order**! Thanks!
Histology for Beginners

In Memory of Harrison Howard
Former Director, Bio-optical Lab
Neuron 1

Input
Dendrites ≡ Antennae

Controller
Soma ≡ NCB

Output
Axon

Connective tissue connects!

Nerve conducts!

Neuron 1

Neuron 2

Neuron 3
**Controllers** ≡ NCBs/somas not pictured → in spinal cord

**Output** ≡ Axons

Bouton with Neurotransmitter Vesicles

**Effectors** ≡ Target Organs Voluntary Skeletal Muscle Fibers
Myocyte Nuclei

Myofibrils ≡ Cytoskeleton Part

Myocytes ≡ Muscle Contractile Cells
Myocytes/Muscle Cells

Intercalated Disc

Single nucleus

Adipocytes ≡ Fat Cells
Frog Skin

Columnar Epithelium

Melanin Pigment layer

Blood Vessel

Duct

Poison Gland, Exocrine
Epithelial tissue covers & is specialized for transport!
Primary Oocytes

Graffian Follicle with developing ovum/egg

Follicle undergoing atresia

Ovary cross section

Ovum
Testis cross section

Spermatogonia

Seminiferous tubules

Interstitial/ Leydig Cells

Testosterone

Tails of developing sperm

Testis cross section
Connective tissue connects!!

- Nuclei of fibroblasts
- Elastin
- Collagen
- Connective tissue
Now, try to identify anatomical site & tissues!