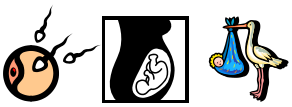
Bio& 242, Unit 4 / Lab 4
Development



Make sure you can identify all of the following structures on models, charts, and pictures in the lab.

Unfertilized Ovum:
Zona pellucida
Corona radiata
First polar body
Second polar body (created by sperm contact)

Sperm:
Head
Nucleus
Acrosome
Midpiece
flagellum

Zygote:
Fertilization membrane
Cortical granules
1 through 32 cell stages
Cleavage
Blastomeres
Morula (32cells)
Blastocyst
Blastocoel
Inner cell mass (embryoblast)
Trophoblast cells

Development periods:
Zygotic
Embryonic
Fetal.

Embryonic Disc Formation:
Bilaminar embryonic disc
Trilaminar embryonic disc

Primary germ layers: (color on models)
Endoderm (yellow)
Ectoderm (blue)
Mesoderm (pink)

Extraembryonic membranes:
Chorion
Amnion
Amniotic cavity
Yolk sac
Allantois
Chorionic villi

Placenta, uterine, and related structures:
Decidua basalis
Decidua capsularis
Decidua parietalis
Unbillical cord
Placental sinus

Fetal Circulation:
Umbilical arteries
Umbilical vein
Ductus arteriosus
Ductus venosus
Foramen Ovale

Types of Twins:
Dizygotic twins
Monozygotic twins

Aging of Human Fetuses:

Use the chart provided with this lab to age the available human fetuses. Fetuses have crown to rump measurements labeled on them. Also use the bar graph provided to determine the critical development periods for the following systems:

Central Nervous System,
External genitalia,
Arms,
Legs,
Eyes,
Ear,
Heart,
Teeth,
Palate.