

Developmental Biology
Biology 103 Fall 2009
Syllabus

Professor Ernst Barnum 201 (617-627-3541) susan.ernst@tufts.edu
Office Hours Wednesday 10:30- 12:00 and by appointment

Time block C: Tuesday, Wednesday, Friday 9:30-10:20
Text *Developmental Biology 8th Edition* Scott Gilbert
Website: www.devbio.com
CD vade mecum

<u>Date</u>	<u>Topic</u>	<u>Readings in Gilbert</u>
9-8	Developmental Biology/gametogenesis	3-8; 15-17; 77-80
9-9	Spermatogenesis	175-178; 612-615
9-11	Oogenesis	178-180; 612-615
9-15	Oogenesis	179-180; 615-622
9-16	Fertilization/sea urchin	181-198
9-18	Fertilization/human	199-207
9-22	Fertilization/eggs/cell cycle	211-216; 42-46
9-23	Cleavage/cleavage patterns	211-216
9-25	Sea Urchin embryology <i>C. elegans</i> embryology	217-220; 223-229 243-250
9-29	Amphibian embryology essay due Zebra fish embryology	291-302; 25-31 325-331
9-30	Chicken embryology	336-342; 373-380 501-503
10-2	Early mammalian embryology	348-357
10-6	Embryology videos	
10-7	Gene/genome/chromatin/expression	101-137
10-9	Exam I	
10-13	Monday schedule/no class	
10-14	Gene expression/ regulation	101-137; 97-99
10-16	Gene regulation	101-137
10-20	Gene regulation/ epigenetics	118-124
10-21	Drosophila embryology video/germ plasm	253-266
10-23	Germ cells Dros.	595-597; 602-604

10-27	Sex determination Dros.	129; 543-549
10-28	Germ Cells/sex determination mammals	598-599; 604-609
10-30	Cell communication	67-74; 164-171
11-3	Cell signaling/growth factors/signal cascades	145-163
11-4	A/P axis in drosophila	259-263
11-6	Drosophila body plan	259-289
11-10	Drosophila body plan/Hox genes	358-364
11-11	Gene regulatory networks	217-229
11-13	Exam II	
11-17	Gene regulatory networks	217-229
11-18	Vertebrate body plan/amphibians	302-323; 343-348
11-20	Inductive interactions/human CNS	373-394
11-24	Inductive interactions/human eye	397-400
11-25	Thanksgiving break	
11-27	Thanksgiving break	
12-1	Stem cells/differential stability	80-86; 599-601; 684-691
12-2	Stem cells/medical implications	80-86; 599-601; 684-691
12-4	Developmental mechanisms/evolution	721-746
12-8	Transposable elements/evolution	
12-9	Evolution	
12-11	Discussion	

Grading

2 essay exams 25% each

CUMULATIVE FINAL 50%

Final Exam: Monday, December 21, 2009 12:00-2:00 PM

