

Revised Lecture & Presentations Schedule – Bio 376 – Fall 2017

Oct. 13 (F)	FIRST HOURLY EXAM
Oct. 16 (M)	<i>Drosophila</i> development I. Early development and the maternal genes: determination of anterior-posterior polarity. Reading: pp. 38-41 (syncytial specification), 115-116 (morphogen gradients), 277-293. VIDEO: <i>Drosophila</i> embryogenesis.
Oct. 18 (W)	<i>Drosophila</i> II. Maternal genes continued, Zygotic genes: gap, pair-rule and segment polarity genes in anterior-posterior patterning. Homeotic selector genes. Reading: pp 284-303.
Oct. 20 (F)	FALL HOLIDAY
Oct. 23 (M)	The Homeotic Complex/Hox genes: Conservation of anterior/posterior pattern formation, evolution via changes Hox gene number & expression. Reading: pp. 301-303, 402-404, 789-792.
Oct. 25 (W)	Pattern formation in tetrapod limb. Reading: pp. 613-644 (most of Chapter 19).
Oct. 27 (F)	PRIMARY LITERATURE PRESENTATION / DISCUSSION 1 (attendance required) Reed et al., 2008 article
Oct. 30 (M)	<i>C. elegans</i> early development and cell specification. Reading: pp. 265-273.
Nov. 1 (W)	Cell-cell interactions in vertebrate development: Spemann & Mangold and the 'organizer,' primary embryonic induction. Reading: pp. 343-348.
Nov. 3 (F)	PRIMARY LITERATURE PRESENTATION / DISCUSSION 2 (attendance required) Misale et al., 2012 article
Nov. 6 (M)	Molecular mechanisms of vertebrate axis formation. Reading: pp. 348-364.
Nov. 8 (W)	Developmental Neurobiology I. Axonal growth & guidance. Reading: pp. 488-509. Articles: Tessier-Lavigne & Goodman, 1996 (pp. 1123-1124); Chilton, 2006.
Nov. 10 (F)	SECOND HOURLY EXAM
Nov. 13 (M)	Developmental Neurobiology II. Neuron-target interactions. Neurotrophic substances. Reading: pp. 511-513 (differential survival).
Nov. 15 (W)	Programmed cell death/apoptosis I. Roles of PCD in normal development, genetics of PCD in <i>C. elegans</i> . Reading: pp. 645-646, 509-511.
Nov. 17 (F)	Programmed cell death/apoptosis II. Molecular mechanisms. Same as above.
Nov. 20 (M)	INDIVIDUAL LITERATURE PRESENTATIONS (attendance required)
Nov. 23-25	THANKSGIVING HOLIDAY
Nov. 27 (M)	Cancer and developmental biology II. More cancer molecular mechanisms, cell cycle regulation. Reading: Gilbert website, supplement(s).
Nov. 29 (W)	INDIVIDUAL LITERATURE PRESENTATIONS (attendance required)
Dec. 1 (F)	Cancer and developmental biology III. Reading: same as for previous
Dec. 4 (M)	Stem cells, cellular 'potency,' human iPSCs. Reading: Chapter 5 (parts, TBD)
Dec. 6 (W)	INDIVIDUAL LITERATURE PRESENTATIONS (attendance required)
Dec. 8 (F)	Evolution and development (Evo-devo) I.
Dec. 11 (M)	Evolution and development (Evo-devo) II. [CLASS LITERATURE PRESENTATION (attendance required) - How snakes lost their limbs: Kvon et al., 2016 - Progressive loss of function in a limb enhancer during snake evolution.]
Dec. 13 (W)	Evolution and development (Evo-devo) III.
Dec. 15 (F)	Lecture catch-up/review [last day of classes]
Dec. 18 - 22	FINALS
Dec. 20 (W)	FINAL EXAM - 8:00 - 10:00 AM

