

Lecture Schedule MCDB 143 Genetic Control of Organogenesis

All powerpoint presentations and lecture texts will be posted on the course website at least one week in advance.

Textbook: Gilbert, Developmental Biology, 7th edition

Prerequisites: MCDB 138

Make sure you are familiar with the material of chapters 9-11 in the Gilbert Textbook

Week	Lecture/Date	Lecture title	Gilbert Chapter
1	1 4/5	Introduction to Model Organisms: Overview of Fundamental Embryonic Stages Morphogenetic Movements	
1	2 4/7	Concepts of Control Mechanisms Differential Gene Expression Cytoplasmic Determinants Cell-Cell Interaction Adhesion and the Cytoskeleton	5, 6
2	3 4/12	Nervous System: Evolution	
2	4 4/14	Nervous System: Structure and Early Development	12, 13
3	5 4/19	Nervous System: Cell Fate and Morphogenesis	12, 13
3	6 4/21	Nervous System: Axonal Pathfinding Synaptogenesis	12, 13
4	7 4/26	Nervous System: Wiring and Connectivity	12, 13
4	4/28	Midterm	
5	8 5/3	Sensory Organs I Neural Crest, Placodes, Migration	13
5	9 5/5	Sensory Organs II Visual, Olfactory, Auditory, Mechanosensory Systems	
6	10 5/10	Development of Endodermal Derivatives I Digestive Tract, Pancreas, Liver	15
6	11 5/12	Development of Endodermal Derivatives II Lung, Salivary Gland, Branching Morphogenesis	15

7	12	5/17	Endocrine System (neuroendo, branchial arches)	
7	13	5/19	Vascular System I Blood vessels	15
8	14	5/24	Vascular System II Heart/Comparative Cardiovascular development	
8	15	5/26	Development of the Blood and Immune System	15
9	16	5/31	Limb Development in Vertebrates and Drosophila	16
9	17	6/2	Development of the Skeleton Cartilage and Bone Differentiation Development of the Skull and Face	14, 16
10	18	6/7	Excretory System Gonads and Endocrine System	14
10	19	6/9	Epidermis Epidermal Appendages	12