

BIOL 344 : Cell and Developmental Biology

Introduction to animal development emphasizing vertebrate embryo, mechanisms governing morphogenesis and cell and tissue differentiation. The course covers topics ranging from microscopy, cell cycle, cell labeling techniques, gametogenesis (formation of sperm and eggs), organogenesis (formation of tissues), and evolution. The material is comparative using examples from both invertebrates and vertebrate model systems. The student will be provided with a foundation of classical embryology (embryo anatomy) while focusing on differential gene expression as the driving force that shapes an embryo. Topics of interest to society including human infertility, human birth defects, assisted reproductive technologies and embryonic stem cells will be included in the curriculum.

Core Course

Credits 3