First class Tuesday 05 September 2023, 12:00-1:15pm, MCZ 101
Please note: the class is capped at 28 students (how to petition)

Description: Ever wonder why you and other animals have eyes? What about teeth or even skin? â€œHow to Build an Animalâ€ answers your questions by exploring the wonders of animal biology. Each week, we consider a prominent feature of animal anatomy; study its variation in form and function; and how itâ€™s made during embryonic development. To facilitate student learning, each topic is accompanied by a hands-on activity that illustrates the concepts discussed in the lecture. Further, the course introduces a number of scientific areas, including comparative anatomy, functional morphology, phylogenetics, genomics, and experimental embryology. The overall goal is to provide a basic understanding of animal evolution and development and how these processes combine to shape the diversity of life on Earth.

Teaching Organization: A typical week will include: a traditional lecture, where students are introduced to terms and concepts, followed by a class dedicated to a hands-on activity to reinforce learning, and ending with a discussion section which will vary in content from week to week. The hands-on activities will provide students opportunities to learn research methods including formulation of hypotheses, experimental design, collection of data, and interpretation of results.

Course Objective: Our primary objective is to introduce students to foundational terms, concepts, and methods in animal biology that can be built upon throughout their undergraduate program. We expect students to leave the course with a deeper understanding of:

1. The building blocks of an animal; what all animals have in common
2. How evolution has shaped these structures across the animal tree of life; morphology and function
3. How these structures are made during development (cellular, molecular, and genetic processes)
4. The scientific methods used to study animal development, morphology, and evolution

Download the SYLLABUS and review the first lab ACTIVITY.

Missed class: responsibilities and marking structure

Click the links to learn more:

Expectations: Attendance, Integrity, etc.	Lectures & lab activities	Discussion section
Assessment & Letter grades	Teaching staff	Accommodations