

## **COURSE ASSIGNMENT**

**COURSE NUMBER:** 3016

**COURSE NAME:** Biomimicry 1: Points of Departure

**Assignment 1: Biology to design**

**Due Date:** September 30, 2016

**Course Instructor:** Jamie Miller

### **LEARNING OUTCOMES**

Biomimicry methodology

Biological abstraction

Visual communication

Rapid ideation

### **PROJECT OUTLINE**

This introductory project is meant to help you transform your perspective of nature through the lens of biomimicry. The idea is to look to the natural world as a system of engineered designs and to apply the basic principles of biomimicry methodology to develop a biomimetic design – i.e. a design that abstracts functional strategies from nature and apply them to a design problem.

### **Deliverables:**

- 3 bio-data sheets that effectively communicate functional strategies in an organism or system in nature.
- 3 examples of biomimicry technologies
- 1 conceptual design idea that is abstracted from one of your 3 organisms

This is an individual project that will be handed in as **one** digital booklet. The format will be 11x17.

### **EVALUATION CRITERIA**

10% Level of biological abstraction – is it superficial or do you creatively abstract *how* an organism achieves a functional strategy (e.g. looking at shape, colour, patterns, at multiple scale, etc.)

5% Level of contribution – does your design solve an important problem? Does it help inspire a new way of looking at a problem that we have in our society and can it inspire a shift in our current “technology” and design thinking?

5% Presentation – do you clearly communicate the link between biology to design? Is it beautiful/do I want to look at your process book?