



## **FREE BIOMIMICRY EDUCATIONAL SEMINARS**

**Tuesday September 8<sup>th</sup>, 2015**

**Wednesday September 16<sup>th</sup>, 2015**

**SDG&E Energy Innovation Center**

(Breakfast & Lunch included)

### **Introduction to Biomimicry**

**Tuesday September 8th, 2015**

Biomimicry and biomimetics come from the Greek words bios, meaning life, and mimesis, also meaning to imitate. Scientist and author Janine Benyus popularized the term biomimicry in her 1997 book *Biomimicry: Innovation Inspired by Nature*. Benyus believes that most of the problems that have ever existed have already been solved by nature. Benyus suggests shifting one's perspective from learning about nature to learning from nature as a way to solve human problems. In the morning session participants will be introduced to biomimicry core values and relevant biomimicry case studies.

What you will learn in this session:

- Introduction to the field of biomimicry
- Defining the meme
- Understand biomimicry and its core values
- The Seeds of Biomimicry
- Deeper exploration of case studies and inspiring organisms

In the afternoon session participants will be introduced to Life's principles. Biomimicry follows Life's Principles. Life's Principles instruct us to: build from the bottom up, self-assemble, optimize rather than maximize, use free energy, cross-pollinate, embrace diversity, adapt and evolve, use life-friendly materials and processes, engage in symbiotic relationships, and enhance the bio-sphere. By following the principles life uses, you can create products and processes that are well adapted to life on earth.

What you will learn and do in this session:

- Introduction to Life's Principle's
- Hands-on exploration of the methodology of using Nature as Mentor, Model and Measure
- Bringing biology into the scoping, discovery, evaluation stage of design
- Integrating Biology into Design methodology

## **Integrating Biology into Design**

### **Wednesday September 16th, 2015**

In the morning session students will learn about the biomimicry methodology and procedures. Animals, plants, and microbes are the consummate engineers. They have found what works, what is appropriate, and most importantly, what lasts here on Earth. Instead of harvesting organisms, or domesticating them to accomplish a function for us, biomimicry differs from other "bio-approaches" by consulting organisms and ecosystems and applying the underlying design principles to our innovations. This approach introduces an entirely new realm for entrepreneurship that can contribute not only innovative designs and solutions to our problems but also to awakening people to the importance of conserving the biodiversity on Earth that has so much yet to teach us.

In the afternoon session participants will learn about nature's strategies. In nature, if a design strategy is not effective, its carrier dies. Nature has been vetting strategies for 3.8 billion years. You will study in details the successful strategies of the survivors and learn how to apply these strategies to our environment. Biomimicry allows innovators and problem solvers of all kinds to create more intelligent and sustainable design through the emulation of nature.

Participants will delve right into practicing the steps of integrating biology into design using real world examples. Through interactive dialogue and creative thinking, the foundation of biomimicry will become familiar and tangible tools to employ in one's work.

What you will learn and do in this session:

- Leverage Life's Principles as a gateway to world of biology and ecology
- Biomimicry Thinking
- Case studies
- Functional Biology
- Hand-on learning activities
- How to observe nature
- Learn from the local champions adapters
- Scoping the challenge
- Know how to participate in the 'biomimicry regional network' and what opportunities are available based on individual goals

## How to Register

- The Biomimicry Educational Workshop is scheduled on:
- **September 8<sup>th</sup> and September 16<sup>th</sup> from 8am-4pm at the SDG&E Energy Innovation Center**
- To register go to: [SDG&E Energy Innovation](https://seminars.sdge.com/iebms/coe/coe_p1_all.aspx?cc=coe&oc=05) website:  
[https://seminars.sdge.com/iebms/coe/coe\\_p1\\_all.aspx?cc=coe&oc=05](https://seminars.sdge.com/iebms/coe/coe_p1_all.aspx?cc=coe&oc=05) (to register for the biomimicry workshop please click on web link above)
- **The registration is open**
- **The workshop is free and open to the public (breakfast and lunch are included).**

### Location:

SDG&E Energy Innovation  
4760 Clairemont Mesa Blvd, San Diego, CA 92117  
(800) 613-8970

Questions, please contact:

Instructor - Jacques Chirazi, Certified Biomimicry Professional+ Founder  
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**Space is limited register in advance!!!**

