BIOMIMICRY SPECIALIST CERTIFICATE

The Biomimicry Specialist Certification Program is an eight-month training program designed to grow regional and discipline-based biomimicry specialists.

The program is delivered through three (3) in-person and also online learning experiences. The in-person work is conducted within the context of a regional cohort, while the online, distance learning is taught with all cohorts together.

Participants in the program will graduate as Biomimicry Specialists, empowered to incorporate biomimicry into their current or planned professions and serve as leaders in the biomimicry network.

< Start Your Application Here >
Biomimicry.net/educating/professional-training/bspecialist

“We’re awake now, and the question is how do we stay awake the to living world? How do we make the act of asking nature’s advice a normal part of everyday inventing?”

~ Janine Benyus
The Biomimicry Specialist (BSpecialist) certification program is delivered in eight months through a combination of in-person and distance learning experiences. The program is designed for working professionals and as such is not a full-time program. It is anticipated that the participants will need to commit 3–6 hours per week to the 29-week online program, plus a total of 16 days for the in-person sessions (which may or may not include travel time depending on where participants live relative to the in-person venue).

The program is designed to introduce and delve into the core fundamentals of biomimicry during the first and second in-person sessions, as well as during the first 16-week online semester. Participants then have the opportunity, through dedicated time and mentorship from instructors, to explore the application of these core fundamentals in their own discipline, field, or area of interest during the 10-week online “Biomimicry Virtual Design Lab,” which culminates at the last in-person session.

Three regional cohorts are planned for 2013, including a Western North American cohort to take place in the San Francisco Bay Area of Northern California, an Eastern North American cohort to take place in the Boston region of Massachusetts and a European cohort to take place in the Netherlands and Germany.

~ Jack Mevorah
INSTRUCTION

The instruction and facilitation team for the course includes Dr. Dayna Baumeister, keystone and co-founder of Biomimicry 3.8, and the primary cohort instructors.

Dr. Baumeister and the cohort instructors will lead the kick-off “Seeds of Biomimicry” three-week online course. Dr. Baumeister will be the primary instructor for the 16-week online semester, while the cohort instructors will offer support and feedback for online course assignments. The cohort instructors are practicing biomimics and are the primary instruction contact for the program participants. These cohort instructors lead the in-person sessions and optimize the participants’ online learning experience.

Dayna Baumeister
Keystone & Co-Founder, Biomimicry 3.8

With a background in biology, a devotion to applied natural history, and a passion for sharing the wonders of nature with others, Dayna has worked in the field of Biomimicry since 1998 as an educator, researcher, and design consultant. As co-founder and keystone for Biomimicry 3.8, Dayna serves as a visionary leader for the organization.

Biomimicry Specialist and Professional certification programs are, hands down, the most exciting and important opportunities for manifesting our vision of a world empowered by nature’s genius.

~ Dayna Baumeister
Karen Allen
Ecologist, Educator
Certified Biomimicry Professional
Based in Bend, Oregon, USA

Karen is a Certified Biomimicry Professional, biologist, and educator who is passionate about sharing the secrets of the natural world to inform sustainable innovations. Her interdisciplinary science background and love of natural history help Karen serve as a Biologist at the Design Table, translating nature’s strategies for architects, engineers, and designers. She is an integral part of Biomimicry 3.8’s teaching team, leading innovators in understanding the practice of biomimicry. She is currently co-developing and teaching the 8-month Biomimicry Specialist Program, the Costa Rica Biomimicry & Design course and other workshops. She has been practicing biomimicry in a variety of projects since 2000.

Erin Leitch
Director of Certification & Design Strategist, Biomimicry 3.8

Coming from a background in architecture and sustainable building advisory, Erin is now the Director of the BSpecialist program, the design instructor for the BProfessional program, and a design strategist for Biomimicry 3.8’s clientele. Erin graduated with the inaugural cohort of the Biomimicry Professional Certification Program in March 2010.

Erin has worked with developers, planners, architects and engineers to understand and act on their unique opportunity to design, build, and operate resiliently and abundantly within Earth’s operating conditions. She has supported over 30 commercial, residential, higher education and retail projects as sustainable design advisor within the US as well as internationally. Her sustainability framework experience includes Biomimicry, Living Building Challenge, The Natural Step, and LEED BD+C, CI, CS and ND.

Sherry Ritter
Research & Education Specialist, Biomimicry 3.8

Sherry has worked much of her career as a wildlife ecologist for state wildlife agencies, and as a research/management coordinator for the U.S. Forest Service. She’s authored numerous magazine articles and a natural history book. While working with Biomimicry 3.8, she has maintained a database of biomimicry case studies, worked as content editor of AskNature.org, and served as a BaDT for a variety of clients including Colgate-Palmolive, Coca-Cola, Natura, HOK, Shell, and Lucchesi Galati. She has helped teach Biomimicry and Design workshops in Costa Rica and Veracruz, MX. Biomimicry brings together her passion and appreciation for nature, her excitement about science, her love for sharing her passions with others, and her goal of a more sustainable way for us to fit in on this planet.
Doug Paige
The Cleveland Institute of Art, Ohio, USA

Doug Paige has been teaching Industrial Design at The Cleveland Institute of Art since 1998, with a focus on problem solving methodology. Doug has been incorporating sustainability into the curriculum since 2000. Projects have included collaborations with local organizations to bring together students and the community for special projects including Cleveland Public Art urban bike racks, APOC furniture from deconstructed houses, and Cuyahoga County Planning Commission to explore biomimicry as a methodology for studying the Cuyahoga River bulkheads and fish health.

Sara El-Sayed
Certified Biomimicry Professional, 2013. Outdoor Environmental Educator and Biologist.

Co-founder of Dayma a company dedicated to journeys around Egypt’s natural areas that connect youth to self, community and biomimicry. She is also co-founder of an NGO called Nawaya dedicated to creating sustainable agriculture in the area of Abusir, Egypt. Passionate, pragmatic, curious, and has a great joy for life. A biologist and anthropologist, Sara is working with her many passions.

Her interests include finding innovative ways of communicating with people, which has also been expressed in her theatre work through various theatre productions. Her jobs have included being an eco-guide in several of Egypt’s National Parks and working on educational programs and curricula for environmental education for both youth and adults. She dreams of co-creating an Egypt that is flourishing and expanding in a sustainable way based on nature’s inspiration.

Saskia van den Muijsenberg
BiomimicryNL

Saskia is the co-founder of biomimicryNL with a background in marketing, change management and strategic innovation. She is a Biomimicry Professional Candidate and currently involved in developing biomimicry curricula and innovation consultancy, acting as a catalyst for innovation, enabling others to explore and develop new ideas then helping to shape and develop real business opportunities.

Through biomimicryNL, Saskia proactively spreads the biomimicry meme across different disciplines and levels (schools, universities, professionals) through both education & practice.
IN-PERSON SESSIONS

Cohorts will spend three in-person sessions together in one regional ecosystem exploring biomimicry, learning about the local ecology throughout the seasons, and enriching the biomimicry network. The in-person sessions provide the opportunity to connect outside of a digital age; to see, feel, touch and learn from nature and to experience the interdisciplinary nature of biomimicry. Attendance to all session is required to graduate from the program.

Each of the in-person sessions will allow for practice with the biomimicry tools and an in-depth exploration of the ecology in different seasons. Also, each has a unique focus. Specific dates for each session for each cohort are listed in the program details below:

**Opening Session (5 days, 4 nights)**
The BSemind journey begins by exploring the fundamental tools of biomimicry through lectures, exercises, deep conversations, and reflection. Working with specific tools in the local ecosystem, participants will develop relationships with fellow members of their cohort and the environment in which they are learning.

**Mid-Program Session (6 days, 5 nights)**
The journey continues by learning how to customize the foundational tools for each participant's specific practice through a variety of experiential learning activities. At this session, participants will become more intimately familiar with the local ecology in a different season and spend time outdoors with the instructors observing the local genius. Additionally, we will kick off the “Biomimicry Virtual Design Lab” (described below) by exploring a topic, challenge, or area of interest of participants’ choosing.

**Closing Session (5 days, 4 nights)**
The journey ends with each participant presenting their work from the “Biomimicry Design and Application Lab” to their peers, outlining the integration of the program learning into a suite of individualized tools for their practice, and strengthening and formalizing the participant’s relationship with their regional network through group feedback, exercises, deep conversations, and reflection.
“There’s nothing like trying to emulate a leaf to make you tremble every time you walk through a forest.”

~ Janine Benyus
IN-PERSON SESSION SITES

Each regional cohort will meet three times throughout the program at their designated in-person session site to connect with others in the cohort and explore the local landscape while processing biomimicry lessons and practices.

Western North American Cohort
Ralston White Retreat Center
Mill Valley, California, USA

Ralston White Retreat Center is located above the town of Mill Valley, a 20 minute drive from the Golden Gate Bridge and San Francisco, and 30 minutes to Stinson Beach and Muir Woods. At the Ralston White Retreat Center, we will enjoy exclusive use of the 43 acres of private redwood forest. There are several hiking trails on the property leading to a pond and to expansive views of San Francisco and the Bay, Mt Tamalpais and surrounding ridges.
Eastern North American Cohort
Essex Conference Center and Retreat (ECCR)
Essex, Massachusetts, USA

ECCR is located on Cape Ann at Boston’s North Shore, just 45 minutes from downtown Boston, Massachusetts and 30 minutes from southern New Hampshire. The Essex Conference Center and Retreat is set on eighteen private acres surrounded by 250 acres of conservation land. At ECCR, we can walk to the Essex Bay, just one mile from ECCR, as well as use the well-maintained walking trails that interlace the property, providing an open invitation for contemplation, birding and exploring of the many interesting natural features.

European Cohort
Morgenstern
Barchem, The Netherlands

The European cohort will stay at Morgenstern for in-person sessions 1 and 3. The Morgenstern estate is located just outside the village Barchem in the middle of the woods and the hills of the Lochemse Mountain. The estate includes 6 acres of forested land, where the cohort can enjoy hiking and exploring.

Das Orange Schaf
Willingen-Usseln, Germany

Due to a seasonal closing at Morgenstern, The European cohort will stay at Das Orange Schaf for in-person sessions 2. The venue offers natural landscapes with magnificent views and varied hiking routes. The trails at Das Orange Schaf take you over high heath land, through forests, blooming meadows and peaceful valleys.
ONLINE LEARNING

The online portion of the program runs for the duration of the program and students will participate remotely through our online learning platform, Moodle. The online course is led by Biomimicry 3.8 co-founder, Dr. Dayna Baumeister, while cohort instructors offer direct support to the individual participants. There are no exams, but assignment completion and attendance to all sessions is required in order to graduate from the course.

The online course format and delivery method includes:

- Pre-recorded video lectures by Dr. Dayna Baumeister, supported with live discussions facilitated by the cohort instructors
- Assignment support and feedback from cohort instructors
- Online discussions with participants from all regional cohorts
- Reading assignments
- Case study analyses
- Individual exercises
- Occasional group exercises
ONLINE COURSE COMPONENTS

“The Essential Elements of Biomimicry” (3 weeks)
This course kicks off the program and occurs prior to the first in-person session. This portion of the online course reviews in depth the three seeds, or values, of biomimicry: ethos, (re)connect, and emulate. It also is designed to help students get familiar with the online learning platform.

“Life’s Principles and Biomimicry Thinking” (16 weeks)
This course will focus on how to integrate biology into one’s practice, whether it be industrial design, architecture, business, engineering, research, medicine, communications, or other fields. The introduced process provides both structure and flexibility to work with a specific methodology, while also allowing for customized integration into one’s own practice. Infused throughout the process is the inclusion of Life’s Principles, which we will explore in-depth while learning how to embed these guidelines into practice. Life’s Principles represent the overarching patterns found amongst species surviving and thriving on Earth.

“Virtual Design Lab” (10 weeks)
Biomimicry is both interdisciplinary and trans-disciplinary. It is an emerging discipline with an ancient practice. Given all of these characteristics, the specific steps and knowledge about how to apply it to one’s unique world, field, and interest, are not developed, established, nor tested. As such, this “lab/studio” is designed to provide the opportunity to explore your own specific ideas over a 10-week period. Scattered throughout the process participants will receive input on specific tools and resources to complement their efforts, as well as targeted feedback by peers, instructors, teaching assistants, and other biomimicry professionals.

Given the unique nature of this studio/lab, the specifics outcomes and design of the course will be customized to meet the cohorts’ needs and passions and is subject to revisions and alterations. However, the studio/lab will include several lectures, live feedback sessions from course instructors, periodic written feedback, and multiple evolutionary iterations of the project each participant has chosen.
LIFE CREATES CONDITIONS CONDUCIVE TO LIFE
RESOURCE HANDBOOK

The primary textbook, *The Biomimicry Resource Handbook: A Seed Bank of Knowledge and Best Practices* (2010) will be made available during the first in-person session. The Handbook is a compilation of a decade’s worth of knowledge, methods and core biomimicry concepts condensed into a useful how-to guide. The Biomimicry Resource Handbook contains the latest thinking and examples of integrating biology into design, how to present case studies, as well as the fundamental biomimicry categories of Life’s principles, and the biomimicry approach. The text is supplemented with a glossary and references, and is personalized with quotes, helpful tips, and contact information. The Resource Handbook already contains over two hundred pages of information and is continuously expanding.

“Biomimics are looking to nature for specific: How will we grow our food? How will we harness energy? How will we make our materials? How will we keep ourselves healthy? How will we store what we learn? How will we conduct business without drawing down nature’s capital?”

- Janine Benyus
SPREADING THE MEME

[meem]:
a cultural item that is transmitted by repetition in a
manner analogous to the biological transmission of genes.

refine:
• how to leverage your knowledge to spread the meme
• communication skills and techniques
• networking ideas and opportunities
• facilitation of others’ learning

BIOMIMICRY
RESOURCE
HANDBOOK
A must book of knowledge and how to innovate
2013 BIOMIMICRY SPECIALIST PROGRAM DETAILS

APPLYING AND ENROLLING
Please complete your application and submit by February 13, 2013. The application fee of $25 (USD) must be paid at the time submitting your application. Instructions for payment included with application.

< Start Your Application Here >
Biomimicry.net/educating/professional-training/bspecialist

Applicants are accepted in a ‘rolling enrollment’ process. This means that within 2 weeks of submitting the application, the applicant will receive their acceptance notification and instructions for enrollment and payment of $250 deposit.

APPLICATION AND PROGRAM ENROLLMENT TIMELINE

Application Period Opens and Rolling Enrollment Commences: October 22, 2012

5% Tuition Discount for Early Enrollment Ends: December 17, 2012

5% Late Enrollment Fee Commences: February 1, 2013

Program Cost and Payment Plan

Tuition and fees: $9,950 (USD) Program tuition and fees include instruction, on-line technology fees, workshop materials and the primary course text from Biomimicry 3.8, The Biomimicry Resource Handbook, A Seed Bank of Knowledge and Best Practices.

A non-refundable down payment of $250 must be submitted with the program enrollment form after program acceptance. This down payment is deducted from the remainder of tuition.

Program Expenses: $2,850 (USD) Program expenses cover the in-person session costs, including shared room accommodations, meals, local travel, and entrance fees. The program expenses do not include travel expenses to and from the in-person session meet-up location (usually the airport) and any optional single room charges. Program expenses are non-negotiable items within the scope of the program costs.

PROGRAM DELIVERY TIMELINE

Essential Elements of Biomimicry online course
March 11–30, 2013

In-Person Session #1
April 3–7, 2013 (All cohorts)

Life’s Principles and Biomimicry Thinking online course
April 15 – August 9, 2013

In-Person Session #2
August 11–16, 2013 (All cohorts)

Virtual Design Laboratory
August 26 – November 1, 2013

In-Person Session #3
Western North American cohort
November 14–18, 2013

Eastern North American cohort
November 7–11, 2013

European cohort
November 7–11, 2013
Payment Plan
Payment to Biomimicry 3.8 for all program costs may be made in three installments. The specifics of the payment plan and payment due dates will be articulated in the program enrollment form upon acceptance. Payments are due on the following installment schedule:

- **First installment**
  February 15, 2013
- **Second installment**
  April 30, 2013
- **Third installment**
  June 15, 2013

Other Fees
A $25 fee is required at the submission of the program application. It is non-refundable and the application will not be reviewed until the application fee has been received. Instructions for payment are included in the application.

Those applying and enrolling to the program after February 1, 2013 will incur an additional 5% late enrollment fee on top of their program tuition.

Discounts
If you are a LEED AP or Green Associate, Designers Accord member, or a member of our biomimicry network, you get a 7% discount. If you enroll before December 17th, you will receive a 5% early enrollment discount. If you pay the total tuition fee upon enrollment, there is a 2% discount. Only 16 discounted seats per cohort are offered and discounts may not be combined.

Scholarships
Our scholarship funds are extremely limited and allocated based on combined need and merit. The scholarship will not exceed one-third of the total tuition fee and most will be approximately ten percent. To request financial aid, you must complete the Financial Aid Request Form, which is accessed from the program application.

QUESTIONS?
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