



## **COURSE PROSPECTUS - BBEC 2009**

**Bringing together design methods and  
technology to provide the information needed to  
create healthy homes and workplaces.**

Bau-Biologie provides a holistic approach to healthy homes and workplaces while always maintaining people, that is, the occupants, at the center of the focus.

**International Institute for Bau-biologie® & Ecology**

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*IBE is a 501 (c) 3 non-profit educational organization*

# The International Institute for Bau-biologie® & Ecology (IBE)

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## **Aim of the IBE**

The International Institute for Bau-biologie® and Ecology, Inc. (IBE), established in Clearwater, Florida in 1987, is a non-profit educational organization dedicated to bringing together the technical expertise, biological understanding and ecological sensitivity to create healthy homes and workplaces.

IBE's main objective is to educate - specifically, to help people realize that homes and workplaces can be created to bring the benefits of both health and aesthetics into their living environments. Bringing awareness to the health hazards that may exist in our living spaces not only improves health and provides a sense of well being, it also has an impact on the survival of this planet.

IBE offers home study courses, Online Study, and Seminars to both professionals and lay people. The education program incorporates practical application of the building biology principles as an integral part of its activities. To address the needs of those wanting to evaluate their homes and offices for levels of electromagnetic radiation, indoor air quality, etc. IBE has a program of courses and seminars to train Environmental Inspectors and Consultants. The numerous graduates in North America, Canada and Australia include architects, electricians, builders, medical practitioners, home inspectors, engineers and many other environmentally concerned people.

Objectives of the IBE:

- To endorse or teach courses, workshops and seminars covering the field of healthier and more natural building and lifestyle.
- To advise and provide support and networking for those who are committed to a healthier and more natural building industry in the products and services that they provide.
- To make information on healthier and more natural building, materials and services available to the public and to the building industry.
- To advise and co-operate with other relevant people, including environmental, research, health, community, local and central government organizations to encourage a healthier and more natural built environment and lifestyles.

## **Bau-biologists**

A Bau-biologist is a researcher, architect, engineer, and doctor, all in one. He or she offers a preventive and healing medicine and a creative and unifying influence. A Bau-biologist is a worker in the global effort to solve the problems that come from modern ways of building and settlement planning—ways that disregard nature and human culture.

To work for a better and more beautiful world is an extraordinary, necessary, and satisfying job. The goal is:

- to regain order and harmony in our surroundings,
- to restore the balance between nature, our buildings, and ourselves
- to help build bridges for the realization of a world that is ecologically oriented.

This is a creative and harmonizing work, and as such, should be carried out without violent conflict. This goal calls for dynamic, idealistic, and creative people. It calls for people who appreciate deeper meanings and hold higher aspirations in life. It calls for people who seek growth and renewal. It calls for people who can stand apart from the masses and transcend the masses' craving for superficial pleasure.

A Bau-biologist must see the holistic relationship of all life. After all, it is unseeing human beings who cause the problem and who are, themselves, the problem. Only by seeing and applying the natural laws ourselves will we be able to lead others out of the labyrinth

As Bau-biologists, we don't have every answer. We may not even be able to change very much the present impersonal, economically, technologically oriented ways of building and living. But let's not worry too much about that. If we set an example ourselves and give good advice, based on Bau-biological principles, we will make a difference. *Then, from the ethical point of view, we can be satisfied with our performance to have participated in changing things to the better hoping that destiny will do the rest.*

### **IBE Certification Tracks**

The IBE Certification programs aim to provide an introductory level course of study suitable for people from varying backgrounds who have an interest in the built environment and its effect on the health of people and the natural environment. The course is not career training in itself, but is a supplement to the many fields it covers and can complement careers in Architecture, Interior and Landscape Design, Building, Town planning, Natural Health and Social Work. It can also suit people coming from a personal point of view, whether to improve their own health or to build their own home.

The courses are intended to challenge and change the way the students live and work in the world, fostering a respect for living in harmony with the natural environment. The benefits of such a lifestyle change affect not only the students themselves, but also their families, the people they work with, and of course the natural environment.

The learning process is relaxed and flexible. It isn't a qualification to "tick off" but a philosophy to be developed over a lifetime. Whether students finish the prescribed assignments is less important than if they continue to learn from people and the world around them, and adopt healthy and sustainable living into their work and lifestyles.

IBE offers two different certification tracks in order to meet your needs.

- Building Biology Practitioner (BBP) – for those who wish only to educate
- Building Biology Environmental Consultants (BBEC) – for those who wish to educate and investigate (Level 200)
- Advanced Courses (Level 300) are offered for those who wish to mitigate

### **Building Biology Environmental Consultant (BBEC)**

This certification track is for BBPs or those with experience (application required for non-BBPs), who wish to expand their outreach to include home/office consultation for clients who are building, remodeling or who want assessments. The content of this program will facilitate the building process. Whether you are working with informed architects and builders or with someone new to environmental building issues, you will be able to tell them what you want. Medical practitioners need to know that numerous illnesses are caused by unhealthy conditions in homes and workspaces. This course will answer many of their questions and will identify solutions to existing problems.

Another group of people who benefit from this course and who have an impact on many of the environmental factors existing in our communities are the manufacturers and distributors of non-toxic and non-hazardous building materials, components and systems. For many people in Europe, Bau-biologie has become a source of income. Consumer demand is growing, and informed suppliers are needed to fill it.

Presently, there are few professionals in this country who have a comprehensive knowledge in this field. In a time where the health consciousness of people is rapidly increasing, architects, civil engineers and builders should have this knowledge to satisfy the demand. A future expectation would be that at least one person in each such firm should be a Bau-biologist.

This course is a translation of the German course by Prof. Anton Schneider, Ph.D., the head of the German Institut für Baubiologie und Ökologie, in Neubeuern. In Germany, it is the ONLY state approved education program for Bau-biologie in Germany. It is the only recognized course for Bau-biologie training in the US.

## Requirements

1. No experience required
2. Completion of 200 contact hours of 200 level on-line courses (this is 150 above the BBP track);
3. Attend three (5) day seminars, or equivalent – Course 211, 212 and 213 (pass exams);
4. Successful completion of the final project - 221
5. Sign an ethics statement
6. IBE member in good standing

*You have up to 2 years to complete the program.*

Contact IBE to find out how to save \$950 using the IBE Advanced Purchase program for the BBEC Certification.

150 of the required contact hours are designated by IBE, while 50 hours are optional based on your area of interest.

Required on-line courses are:

- Building Biology: IBE 201.2
- Building Physics: IBE 202.2, IBE 202.3, IBE 202.4, IBE 202.5
- Ecological Design: IBE 203.2, 203.3
- Living Environment: IBE 204.2, IBE 204.3, IBE 204.6, IBE 204.9
- Building Materials: IBE 205.2, IBE 205.3
- Structural Components: IBE 207.2
- Healthy Home Manual: IBE 209.2

Lecturers and teachers are all accomplished environmental inspectors; some have the highest merits. Their experience has helped to establish guidelines and threshold values, which consider biological rather than technological values.

Some basic instruments are needed to get started. In order to conduct basic home assessments you can expect expenditures in the range of \$1500. The equipment cost is not included in the Seminar fee and will ultimately depend on the equipment that each student chooses to purchase.

## **The Style of Learning**

The correspondence and on-line courses are not “spoon-fed.” You will need initiative to find out what you need to know, and self-discipline to keep on with the course. Each course module, rather correspondence or on-line, has quizzes or study sheets, that are used to reinforce your learning and monitor your progress. The primary objectives are to have fun and learn! Follow your intuition, your inclinations and access your passions. This way learning is not only more productive, but is quite painless. The way you go about learning is up to you – reading, talking, listening, creating, teaching, or doing workshops – as long as you achieve the knowledge in the end.

You are welcome to contact IBE by e-mail, letter or phone. Support time may not be full time, but we will do our best to contact you as soon as possible. We will be happy to discuss any questions you have regarding finding information, answering the questions, doing the assignments, as well as provide general encouragement and support.

## **Certification**

The IBE Certificates are for general interest only and are not registered in Canada or the United States. So you cannot apply for special funding, but then the course costs are kept low to offset that. However, we have modeled it on the Distance Educational Training Course (DETC) standards to provide you with an informative and enjoyable course.

### **Prerequisites**

There are no required pre-requisites for any course or seminar. However, as some courses build upon the knowledge of others, pre-requisites may be. Certification requires successful completion of all required courses and seminars for the specified level. (See IBE Certification Tracks)

Although, it is especially suitable for those who wish to complement their existing knowledge in design or construction, students can still do it with no formal training. An innate sense of design or an ability to make design decisions for one's own personal situation is sufficient.

### **Enrollment**

Students can enroll at any time in the correspondence and on-line courses. Seminars are scheduled at various times throughout the year, please refer to the IBE website for specifics. [www.buildingbiology.net](http://www.buildingbiology.net)

### **Equivalent Courses**

IBE recognizes experience, education from accredited universities and respected similar organizations as equivalent to some of the courses offered. These are evaluated on a case-by-case basis. Please contact IBE at [info@buildingbiology.net](mailto:info@buildingbiology.net) for an application to petition for course credit. Note that an application with a non-reimbursable administrative fee will be required. Required contact hours will be set based on your experience.

### **Course Descriptions**

#### **IBE 200 Level On-line Courses**

For the on-line courses, see the course catalogue on the IBE website – [www.buildingbiology.net](http://www.buildingbiology.net)

Time requirement: 200 contact hours [150 in addition to those required for the BBP track]

Prerequisites: None

#### **Courses 211-213**

People who attend the IBE seminars come from many walks of life and include: People studying to become an Institute-certified Building Biology Environmental Consultant (BBEC); Architects and designers wishing to adopt safe building practices; People planning to build or remodel their own houses; Feng Shui practitioners wishing to complement their knowledge with Bau-biologie data; Medical doctors – mostly alternative medical practitioners who realized that many illnesses are the result of sick buildings; and People simply interested in finding out what makes a healthy indoor environment.

A portion of this seminar is devoted to taking occupant histories, hands-on training with equipment and sampling protocols, laboratory analysis interpretation; recommendations and reporting to clients. Field inspection in small groups, guided by certified BBEC instructors, will explore the use of equipment and testing methods.

It is possible to take the Seminar on Indoor Air, Water and Materials and the Seminar on Electromagnetic Radiation separately based on a special interest or need. To become a Certified Building Biology Environmental Consultant see the section below on the Building Biology Environmental Consultant program.

#### **IBE 211 Indoor Air, Water and Materials**

This seminar is focused on pollutants that are present in our indoor air, tap water and in building materials. Allergies, immune system suppression, fatigue, nervous system complaints, and many other conditions are triggered or made worse by such substances. Emphasis is placed on how to identify problems, what their health impacts are, and how to take effective action. The viewpoint is

holistic – we are concerned with the well being on all levels of the people who occupy the building.  
Topics include:

- Biological contaminants i.e., mold, bacteria etc.
- Volatile organic compounds (VOC's), such as formaldehyde
- Pesticides
- Combustion gases, such as carbon monoxide
- Water pollution
- Dust and particulates
- Environmental stressors, such as humidity and temperature

Resources: On-line module: *Indoor Climate*

Time requirement: 5 days (successful completion of a written exam is required for BBEC status)

Prerequisites: 204.2

### **IBE 212 Electromagnetic Radiation**

Because of a great number of practical experiences, we have learned that electromagnetic radiation (EMR) influences the well being of people both at home and at work. It is of great importance to understand the basics of EM radiation, so that people can help themselves, and avoid the numerous bad effects associated with EMR.

The theory of EM radiation is demonstrated with practical examples and case studies, based on actual home inspections. Particular emphasis is placed on the bedroom as well as EM radiation that may enter the house via the public water supply system. The instruments used in the detection procedure are demonstrated. Topics include:

- Fundamental definitions of energy and how electricity is a special class of energy
- Concepts of AC electric and AC magnetic fields
- EMF low and high frequency ranges including radio frequency and cellular phone
- Definition of AC electric and magnetic fields and DC electric and magnetic fields
- Ionizing radiation
- Static electric and magnetic fields

Resources: On-line module *Electromagnetic Radiation*

Time requirement: 5 days (successful completion of a written exam is required for BBEC status)

Prerequisites: 204.3

### **IBE 213 Natural Building/Remodeling Practices**

This 5-day seminar discusses the Principles of Bau-Biologie®. Building Biology is a specialized branch of Building Science that explores the inter-relationships between human health, the built environment and planetary ecology. It is a “full spectrum” approach to the built world. Students review the indoor environmental hazards a home or office may contain and the design and construction strategies to avoid them during construction and remodeling. Additionally, students learn about available, and often economical, solutions to rectify known problems. This seminar benefits home dwellers, architects, interior designers, and other building professionals. Students who are in the Building Biology™ Environmental Consultant track will present reports of their case studies. Topics include:

- Environmental situation
- Building Science
- Bau-Biologie design within the building culture
- Outdoor Environment
- Biologically-sound building materials and strategies
- Home maintenance and upkeep

Resources: IBE Natural, Healthy Building Course [IBE 101], Prescriptions for a Healthy House, by Paula Baker Laporte, et al., Natural Remodeling for the Not-So-Green House: Bringing Your Home into Harmony with Nature by Carol Venolia and Kelly Lerner

Time requirement: 5 days (successful completion of a written exam is required for BBEC status)

Prerequisites: 204.2

**IBE 221 Final Project**

This final project is required for BBEC certification. It is a practical assignment designed for the student to prove understanding and instrument proficiency of the material and protocols discussed in IBE 211 (Indoor Air Quality Seminar), IBE 212 (Electromagnetic Radiation Seminar) and IBE 213 (Natural Building/Remodeling Practices).

Topics include:

- EMF low and high frequency ranges including radio frequency and cellular phone
- Static electric and magnetic fields
- Volatile organic compounds (VOC's), such as formaldehyde
- Pesticides
- Combustion gases, such as carbon monoxide
- Water pollution
- Dust and particulates
- Environmental stressors, such as humidity and temperature
- Environmental site assessment
- Building materials and processes
- Indoor climate

Resources: On-line modules 204.1, 204.2, 204.3 and Seminar material: 211, 212, 213

Time requirement: Variable

Prerequisites: IBE 211, IBE 212 and IBE 213